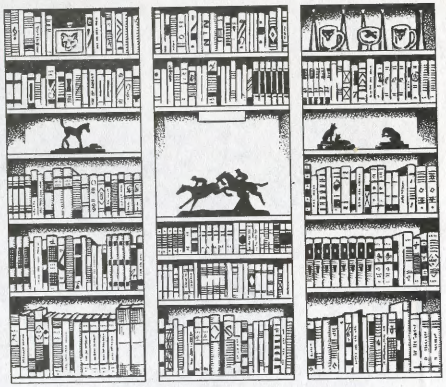
# FRANK SCHLEY'S

# AMERICAN PARTRIDGE

AND

# PHEASANT SHOOTING.



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# AMERICAN PARTRIDGE

AND

# PHEASANT SHOOTING

WRITTEN BY HIMSELF.

---

DESCRIBING THE

HAUNTS, HABITS, AND METHODS OF HUNTING AND SHOOTING THE AMERICAN PARTRIDGE; QUAIL. RUFFED GROUSE; PHEASANT.

WITH

DIRECTIONS FOR HANDLING THE GUN, HUNTING THE DOG, AND THE ART OF SHOOTING ON THE WING.

CONTAINING

A HISTORY OF THE PARTRIDGES AND GROUSE INHABITING NORTH AMERICA.

**ILLUSTRATED.**

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FREDERICK, MD.:
BAUGHMAN BROTHERS.
1877.

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# PREFACE.

In presenting the American Partridge and Pheasant Shooting, I have endeavored to lay before the public, in as precise and brief a form as possible, full and trustworthy explanations of the various practical methods of hunting, and shooting, with dog and gun, the American Partridge and Pheasant, which twenty-five years of almost constant pursuit in the American fields, and woodlands, in the Eastern portion of our country, have enabled me to attain; adding only the assurance, that I have been prompted to this work, from a pure love and fondness for the dog and gun, and those ennobling and manly sports of which I have been for so many years an ardent follower. And if these crude lines which I have penned prove of any service to my brother Sportsmen, my object will be fully accomplished, and my labor of love will not have been in vain.

FRANK SCHLEY.

Frederick City, Md., 1877.

TO THE

SPORTSMEN OF AMERICA,

IN RECOGNITION OF THEIR HIGH QUALITIES,

AS TRUE SPORTSMEN, AND CRACK SHOTS,

THIS WORK ON PARTRIDGE AND PHEASANT SHOOTING

IS MOST RESPECTFULLY DEDICATED

BY THE

AUTHOR.

FRANK SCHLEY'S

# AMERICAN PARTRIDGE

—AND—

# PHEASANT SHOOTING.

## THE PARTRIDGES.

THE Partridges are erected into the family *Perdicidæ* with several sub-families. They abound more or less all over the surface of the Globe. One group of the Partridges belong to America, all the rest to the Old World. The American Partridges are erected by the authors into the sub-family *Ortyginæ* or *Odontophorinæ*. They may be distinguished among the American *gallinæ* by the following characteristics: Head feathered, nostrils protected by a scale, tarsi and toes not feathered, bill stout, a toothing or bidentation on the sides of the edge in the lower mandible, concealed in the closed mouth scarcely noticeable. In this family the following species and varieties abound in the United States; the name of each species and varieties and their places of residence, according to Baird, Brewer and Ridgway, are as follows:

*No.* 1. *Quail; Partridge; Bob-White.*—This species inhabits Eastern United States, to the high central plains—Devil's River, Texas.

*No.* 2. *Ortyx Virgineanus; Var.; Texanus.*—Inhabits Southern Texas and Valley of the Rio Grande, Republican River, Kansas, Washita River, Indian Territory.

*No.* 3. *Plumed Partridge; Mountain Quail.*—Inhabits mountain-ranges of California and Oregon towards the coast, Nevada, Eastern Slope and foot-hills of the Sierra Nevada. —*Ridgway.*

*No.* 4. *California Partridge; Valley Quail.*—Inhabits Valley portions and foot-hills of the Pacific province of the United States, south to Cape St. Lucas.

*No.* 5. *Gamble's Partridge; Arizona Quail.*—Inhabits Colorado Valley of the United States, north to Southern Utah, and East to Western Texas.

*No.* 6. *Scaled, or Blue Partridge.*—Inhabits Table-lands of Mexico and Valley of the Rio Grande of Texas. Most abundant on the high broken table-lands and mesquite plains.

*No.* 7. *Massena Partridge.*—Inhabits Chiefly on the Upper Rio Grande from the high plains of the Pecos, Fort Whipple, Arizona, Northern Mexico, southward, on the west coast, to Mazatlan.

Of these seven species and varieties of beautiful game birds, six of which, the second, third, fourth, fifth, sixth, and seventh, nowhere exists to the eastward of the Mississippi River, and have never fallen before my gun. These six I shall only notice by giving their character and history, which I will produce from the best authors in North American Ornithology. The first species, Quail; Partridge; Bob-White, I offer to the sportsmen as the object of my pursuit, and the special aim of this treatise. This species being found in great abundance in the whole of the Eastern Province of North America, and is the well-known game bird of this country. In systematizing this work I shall begin with the Ornithological description of the second variety, and continue on with the third, fourth, fifth, sixth, and seventh. I shall then close this department of my work with giving a full and precise account of the character, history, haunts, habits, flight, food, &c., and the most successful methods I have used in hunting and shooting the first species.

## ORTYX VIRGINIANUS, var. texanus.—Lawrence.

Sp. Char.—General appearance that of *O. Virginianus*. Chin, throat, forehead, and stripe over the eye, white, Stripe behind the eye continuous with a collar across the lower part of the throat, black. Under parts white, with zigzag transverse bars of black. Above pale brownish-red strongly tinged with ash, the feathers all faintly though distinctly mottled with black; the lower back, scapulars, and tertials much bloched with black, the latter edged on both sides, and, to some extent, transversely barred with brownish-white. Secondaries with transverse bars of the same on the outer web. Wing coverts coarsely and conspicuously barred with blackish. Lower part of neck, except before, streaked with black and white.

*Female* with the white of the head changed to brownish-yellow; the black of the head wanting. Length, 9.00; wing, 4.35; tail, 2.85.

Hab.—Southern Texas and Valley of the Rio Grande; Republican River, Kansas; Washita River, Indian Territory.

Habits.—This form, which appears to be confined to the southern portion of Texas and to the Valley of the Rio Grande River, was first described by Mr. Lawrence in 1853. It has been taken in the neighborhood of San Antonio and on the Nueces River, by Captain Pope; on Devil's River by Major William H. Emory; at Fort Clark, on the Pecos River, near Laredo, Texas, at Matamoras, and near New Leon, Mexico, and in other localities, by Lieutenant Couch. According to Mr. Clark, they were very abundant in the Valley of the Pecos, as well as in all Southwestern Texas. They were much like the common Virginia Quail in habits as well as in appearance, and to his ear the note of this bird was absolutely identical with that of the common Quail. He has often been a spectator of fights among the males of this variety. To this account Dr. Kennerly adds that he observed them everywhere in considerable num-

bers from the coast to the headwaters of Devil's River, and also along the Pecos River; but farther west than this none were seen. In the open prairie lands great numbers were always found early in the morning in the road. The close resemblance of its habits to those of the common Partridge was also noticed.

This Quail was first observed by Dr. Heermann in abundance on the Pecos River, although seen some days previous to reaching that point. Their numbers increased as they neared civilization, and near San Antonio they became very plentiful. The call of the male bird is said to consist of two notes repeated at intervals, which are less loud, clear, and ringing than those of the common *Ortyx Virginianus*. They feed on the open prairies on grass seeds, grains, berries, and insects, and, if alarmed, they take refuge among the scattered mesquite-trees and clumps of bushes. When hunted, they lie to the dog in the manner of the common species, and, if flushed, fly in a direct line, with a loud whirring noise, caused by the shortness and rapid motion of the wings. An egg of this bird, found by Dr. Heermann dropped upon the road, was in form and color like that of the common Quail, but smaller.

Mr. Dresser states that in Texas this bird is known as the "Common Partridge" of the country. He found it abundant everywhere in localities suitable to its habits. Near Matamoras it was very common, and was the only species of Quail he noticed there. At Eagle Pass and Piedras Negras, where the soil is sandy, the grass scanty, and cacti abundant, he saw only one bevy, but plenty of the *Callipepla Squamata*. Near San Antonio only this Quail is found, nor did he observe any other species in travelling towards the northeast. Amongst the Bandara Hills, where he met with the Massena Partridge, he also found the Texan Quail in the valley and near the maize-fields. In travelling from Brownsville to San Antonio the Texan Quail was everywhere abundant except in the sand deserts. This species was found to be rather irregular as to its breeding season, as he found young birds near Matamoras early in July, and

PLUMED PARTRIDGE; MOUNTAIN QUAIL, OF CALIFORNIA.

[illegible] met with quite young birds near the Nueces River, and Dr. Heermann informed him that he had likewise procured eggs near San Antonio late in September. He obtained a set of their eggs taken near San Antonio, which are very similar to those of the *Ortyx Virginianus*, but are slightly smaller.—*Baird, Brewer and Ridgway.*

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## PLUMED PARTRIDGE; MOUNTAIN QUAIL.

*Oreortyx pictus* —BAIRD.

SP. CHAR.—Head with a crest of two straight feathers, much longer than the bill and head. Anterior half of the body grayish-plumbeous; the upper parts generally olivaceous-brown with a slight shade of rufous, this extending narrowly along the nape to the crest. Head beneath the eyes and throat orange-chestnut, bordered along the orbits for a short distance behind by black, bounded anteriorly and superiorly by white; of which color is a short line below the eye. Posterior half of the body beneath white; a large central patch anteriorly, (bifurcating behind), with the flanks and tibial feathers, orange chestnut-brown; the [illegible] showing black and white bands the former tinged with chestnut. Under tail-coverts black, [illegible] with orange-chestnut. Upper tertials margined terminally with whitish. *Female* differing only in slightly shorter crest. Length, 10.50; wing, 5.00; tail, 3.25.—*Juv.* [illegible] generally, pale brown, the feathers of the upper parts [illegible] barred with darker, and with median shaft streaks blackish; lower plumage plain brown. Breast clear [illegible] presenting a well-defined area. Head pale brown, [illegible] not lighter than the body, with a conspicuous [illegible] and lateral (auriculars) broad stripes of dark umber [illegible] Feathers of the flanks blackish, broadly bordered [illegible] dingy whitish. A short truncated tuft of hair-like

PLUMED PARTRIDGE; MOUNTAIN [illegible] OF CALIFORNIA.

in September again met with quite young birds near the Nueces River, and Dr. Heermann informed him that he had likewise procured eggs near San Antonio late in September. He obtained a set of their eggs taken near San Antonio, which are very similar to those of the *Ortyx Virginianus*, but are slightly smaller.—*Baird, Brewer and Ridgway.*

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feathers on the crown. (Described from figures in Grayson's plate.)

HAB.—Mountain ranges of California and Oregon towards the coast. Nevada (eastern slope and foot-hills of the Sierra Nevada; (*Ridgway*).

There are two quite different races of this species, but which, however, pass gradually into each other, and must be considered as merely the extremes of one species. They may be defined as follows:

1. *Var. Pictus.*—Pure ash confined to the pectoral region; the russet-brown or rusty-olivaceous of the upper parts covering whole neck and crown; forehead entirely ashy. Wing, 5.25; tarsus shorter than middle toe (1.27; middle toe, 1.30.) *Hab.*—Washington Territory, Oregon, and upper coast region of California.

2. *Var. Plumiferus.*—Pure ash covering whole pectoral region, and crown, nape, and upper part of back; the grayish-olivaceous above confined to the posterior parts. Forehead distinctly whitish. Wing, 5.25; tarsus longer than middle toe (1.27; middle toe, 1.25.) *Hab.*—Sierra Nevada, and Southern California to Cape St. Lucas.

HABITS.—The Mountain Quail of California is said by Dr. Newberry to be similar in some respects to the common Partridge of Europe. It is nowhere very common, but occurs sparingly throughout the entire length of California and Oregon to at least the Columbia, and probably beyond it, having much the same range with the *Californicus*, though everywhere a rarer bird, and always confined to the hills and mountains. Its habits are similar to those of the other species of this family, but it is less gregarious, and is more shy. It is usually found in the chaparral, where it is put up with difficulty, as it seeks safety by running on the ground rather than by flight. On the first of August, at the base of Lassen's Butte, Dr. Newberry found a solitary hen with a brood of very young chicks. The brood scattered like young Partridges, uttering a piping note like that of young chickens, and when all was still, again were recalled by the mother with a *cluck*, much like the call of the

common hen. The party frequently saw coveys and broods of these birds, the young of which were about half grown, until they reached the plains of Pit River. None were seen in the Klamath Lake basin, the country being too bare and flat. They were again met with among the hills bordering the Willamette Valley, and were found from the Columbia, almost uninterruptedly through the Siskiyou, Calapooza, and Trinity Mountains, to California. They are favorite pets with the miners, by whom they are frequently kept in confinement, and not unfrequently command a high price. Their flesh is said to be white and excellent, and fully equal to that of any of the family.

According to Dr. Cooper, this Quail is very rare in Washington Territory, a few small coveys having been met with about Vancouver, as he was informed by the officers in the garrison. He never succeeded in finding any, though he hunted for them several times with a dog. They became quite common south of the Columbia, towards the prairies of the Willamette. He inquired especially for them in other parts of the Territory, but never heard of them. In California, south of San Francisco, this bird is said to be a rare curiosity to the market-hunters, one or two sometimes occurring among flocks of the California Quail. It is known to them as the Mountain Quail. Dr. Suckley states that the birds in the Willamette Valley were introduced there, and that they are now multiplying rapidly upon the prairies back of Fort Vancouver. With a very little care it is thought the whole of the Territory may become well stocked with them, as the absence of foxes west of the Cascade Mountains and the mild open winters are favorable for their increase.

Dr. Heermann found the birds of this species wild and difficult to procure, flying and scattering at the least symptom of danger, and again calling each other together with a note expressive of great solicitude, much resembling that of a Hen-Turkey gathering her brood around her. During the survey he observed these birds only once, and then but for a few minutes, as they were passing through a deep canon

leading down to Elizabeth Lake. They were seen by the hunters on the mountains surrounding Tejon Valley; but though he went several times in search of them, he obtained none.

Mr. Ridgway met with the Mountain Quail on the foothills of the Sierra Nevada, in the vicinity of Genoa and Carson City, and also in the mountain ranges lying immediately to the eastward of the Sierra. It was quite rare and very difficult to discover, and when found was generally met with accidentally. He obtained it in November in the thick chaparral at the eastern base of the Sierra Nevada. In May he secured a pair in the cedar woods a little to the eastward of Carson City, and in December a flock was met with on the Comstock Mountain, near Pyramid Lake. Its call-note when a flock is scattered is almost exactly like that of a Hen-Turkey, only proportionally weaker. When a flock is startled, they utter a confused chuckling note, something like that of the common eastern Quail. The male has a very pleasant crowing-note which sounds some like *koo-koo-koo'e.* The settlers in Nevada, say that, previous to the settlement of that country by the whites, this Quail was not found east of the Sierra Nevada, and affirms that they followed the wagon-roads over the mountains, in the rear of trains and wagons, for the purpose of picking up the grain scattered along the road. Mr. Ridgway does not give full credit to the truth of these statements, as he was informed by the Indians at Pyramid Lake, that, within the memory of the oldest members of their tribe, it had always been found in that vicinity.

An egg of this species taken by Dr. Canfield, near Monterey, California, measures 1.45 inches in length by 1.10 in breadth. It is oval in shape; one end is considerably more pointed than the other. It is of a very rich cream-color, with a reddish shading, and unspotted.—*Vol. III., Baird, Brewer and Ridgway.*

CALIFORNIA PARTRIDGE; VALLEY QUAIL.

## CALIFORNIA PARTRIDGE; VALLEY QUAIL.

Lophortyx Californicus.—Bonap.

Char.—Crest black. Anterior half of body and upper parts plumbeous; the wings and back glossed with olive-brown. Anterior half of head above brownish yellow, the shafts of the stiff feathers black; behind this a white transverse band which passes back along the side of the crown; within this white, anteriorly and laterally, is a black suffusion. The vertex and occiput are light brown. Chin and throat black, margined laterally and behind by a white band, beginning behind the eye. Belly pale buff anteriorly (an orange-brown rounded patch in the middle) and white laterally, the feathers all margined abruptly with black. The feathers on the sides of body like the back, streaked centrally with white. Feathers of top and sides of neck with the margins and shafts black. Under tail-coverts buff, broadly streaked centrally with brown.

*Female* similar, without the white and black of the head; the feathers of the throat brownish yellow, streaked with brown. The buff and orange-brown of the belly wanting. The crest short. Length, 9.50; wing, 4.32; tail, 4.12.

*Young.*—Head as in the adult female. Upper parts pale brown, finely mottled transversely with black; scapulars and feathers of the back with yellowish-white shaft streaks, widening at the end of the feather, and with a large black spot on each web.

*Chick.*—Ground-color dingy white, tinged on the head, wings, and upper parts with pale rusty. A broad stripe on occiput and nape umber-brown; upper parts with rather confused and rather elongated mottlings; an indistinct auricular spot. Beneath plain dull white.

Hab.—Valley portions and foot-hills of the Pacific Province of the United States, south to Cape St. Lucas.

Habits.—This beautiful species, according to Dr. Newberry, is called the Valley Quail in California, to distinguish it from the Plumed Quail, which inhabits the hills and the

CALIFORNIA PARTRIDGE: VALLEY QUAIL.

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*Female* similar, without the white and black of the head; the feathers of the throat brownish-yellow, streaked with brown. The buff and orange-brown of the belly wanting. The crest short. Length, 9.50; wing, 4.32; tail, 4.12.

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Hab.—Valley portions and foot-hills of the Pacific Province of the United States, south to Cape St. Lucas.

Habits.—This beautiful species, according to Dr. Newberry, is called the Valley Quail in California, to distinguish it from the Plumed Quail, which inhabits the hills and the

high lands, and is called the Mountain Quail. The common Valley Quail of California inhabits the prairies and the grain-fields of the cultivated districts, and frequents the thickets which border the streams, usually in coveys of from a dozen to a hundred individuals, except during the breeding-season, when it is found only in pairs. Like the eastern Quail, the male bird is very fond of sitting on some stump or log projecting above the grass and weeds which conceal his mate and nest or brood, and, especially in the early morning, uttering his peculiar cry,—whistle it can hardly be called. This note is spoken of as being rather harsh and disagreeable than otherwise, and somewhat resembling that of some of the Woodpeckers. Dr. Newberry adds that it may be represented by the syllables *kuck-kuck-kuck-ka*, the first three notes being rapidly repeated, the last prolonged with a falling inflection. As a game bird he regards this Quail as inferior to the eastern one, though of equal excellence for the table. It does not lie so well to the dog, does not afford as good sport, and takes to a tree much more readily than the eastern Quail. It is found in all the valleys of California and Oregon, both those in the interior and those that open on the coast. It is not found in the deep forests, nor on the mountains at any considerable elevation, nor in the interior basin where water and vegetation are scarce. Specimens were taken by his party in different parts of the Sacramento Valley, at Fort Jones, and in the Willamette Valley, near the Columbia. In all these there was no appreciable difference. This bird is said to make no elaborate nest, but to lay a large number of eggs on the ground, which are generally hatched in June. This bird is susceptible of domestication, and forms quite an ornament for parks, in which they thrive with proper care.

Dr. Suckley states that this Quail was successfully introduced into Washington Territory, on the prairies near Puget Sound, in the spring of 1857, by Governor Charles H. Mason and Mr. Goldsborough. Two lots were introduced, and by the following winter had increased largely.

Mr. Gibbs mentions having met with great numbers of these birds in Russian River in 1851, and again in the Klamath in 1852. They were very tame, but took to the bushes when disturbed, perching on the limbs. Like the sharp-tailed Grouse, they gathered in large flocks. This was the case even when young, and it has been thence inferred that several females belong to one male, and with their broods all run together.

Dr. Kennerly states that his party first met with this beautiful Partridge upon reaching the waters of the Mohave River, and during the march up the stream he found it very abundant, as well as among the settlements along the coast. He could perceive no difference in its habits from those of *Lophortyx gambeli*.

Dr. Heermann states that he found the California Quail very numerous as far south as Vallecita, where commences the desert that extends to the Colorado, forming an apparently impassable barrier between it and the closely allied species, Gambel's Partridge. When flushed from the ground, it invariably flies to the trees, if in a wooded country, where it squats so closely lengthwise on a branch that it can rarely be seen when thus hidden. It will not lie to a dog, but runs until it is forced to fly. It may be readily tamed, and in California is often domesticated with the poultry. Several years since, according to Dr. Heermann, an attempt was made to introduce these birds into Long Island, which at first promised to be successful; but unfortunately, after the first season, they were all exterminated by the gunners for the New York market.

Mr. Ridgway met with this species only on the west slope of the Sierra Nevada, and at an altitude of not more than four or five thousand feet. He had no opportunity to learn anything in regard to its habits, but was enabled to listen to its notes. The call-note of the male is very peculiar, and resembles somewhat the syllables *kuck-kuck-kee*, the accent being on the last syllable. The common note of the male bird, when disturbed with its mate in the bushes, and probably having a brood of young in the vicinity, was a

sharp *pit*, precisely like the common note of the Cardinal Grosbeak. The nest of this bird is made in the open fields or at the foot of a bush, and is composed of loose grasses arranged without much care. The eggs are said to be twelve or sixteen in number, and are yellowish or grayish white, spotted and dashed with dark brown or burnt umber.

Mr. Titian R. Peale, in his Notes on the Wilkes Expedition, mentions observing this species in the mountainous regions of Southern Oregon, near the 43d degree of north latitude, which he regarded as their farthest northern range. He frequently observed them collecting at night to roost in trees. At such times their call-note was plaintive, and had a slight resemblance to the words *cut-cut-cut me-too*. Specimens of this bird were taken alive, kept by members of the expedition, and brought to the City of Washington by a route equal to the circumference of the Globe, where they produced one brood of young.

Soda Lake, the "sink" of the Mohave River, the bed of which is usually quite dry, except in spots, for many miles, is said by Dr. Coues to be just where this species and the *L. gambeli* find a neutral ground, the western bird following the water-courses until arrested by the desert.

Mr. Xantus found this Quail breeding in great abundance at Cape St. Lucas. In one instance he found four eggs on the bare sand, under a pile of drift-wood, without any trace of a nest. In another, three eggs were found on the bare ground, under a fallen cactus. In a third case there were nine eggs, also laid on the bare ground, but in the shade of a jasmine-bush. They were frequently found sheltered under piles of drift-wood.

The eggs of this Quail are subject to great variations in marking, and also differ somewhat in size. They are sharply pointed at one end and rounded at the other. One egg, measuring 1.30 in length by 1.00 in breadth, has a ground-color of creamy white, freckled with markings of a uniform shading of an olivaceous-drab. Another, measuring 1.22 by .91 inches, has the ground-color of the same, but the markings are larger and more confluent, and their

color is a rusty drab. A third is 1.18 by .95 inches; ground-color a creamy white marked by large scattered spots of a chestnut-brown.—*Baird, Brewer and Ridgway.*

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## GAMBEL'S PARTRIDGE; ARIZONA QUAIL.

**Lophortyx gambeli.—Gambel.**

Sp. Char.—General color cinereous; abdoman plain whitish; inner or upper webs of tertials broadly edged with white. Elongated feathers of the sides bright chestnut with a medial streak of white.

*Male.*—The ash on the breast of a bluish caste, and the whitish of the belly strongly tinged with yellowish-buff, especially anteriorly; abdoman with a black patch. Anterior half of the head, and whole throat, deep black, bordered posteriorly with two broad, well-defined stripes of white,—the upper of these crossing the middle of the vertex and running backward above the auriculars to the occiput; the other beginning at the posterior angle of the eye and running downward. Vertex and occiput bright rufous, bounded anteriorly and laterally with black. Crest of black elongated, club-shaped, and considerably re-curved feathers, springing from the vertex just behind the black bar, one and a half inches long. Wing, 4.70; tail, 4.30; bill, .50 long, and .25 deep; tarsus, 1.15; middle toe, 1.15.

*Female.*—Head plain grayish, without white, black, or rufous; no black on abdoman, which also lacks a decided buff tinge; the cinereous of breast without bluish caste. Crest dusky, less than one inch long. Wing, 4.55; tail, 4.20.

*Young.*—Upper parts ashy brown, minutely and indistinctly mottled transversely with dusky; scapulars and wing-coverts with white shaft-streaks, the former with pairs of dusky spots. Breast and sides with obsolete whitish bars on an ashy ground.

*Chick.*—Dull sulphur-yellowish; a vertical patch, and two parallel stripes along each side of the back, (four altogether), black. (Described from Grayson's plate).

HAB.—Colorado Valley of the United States; north to Southern Utah, and east to Western Texas.

HABITS.—Gambel's Partridge was obtained by Dr. Kennerly, near San Elizario, Texas, and on Colorado River, California, by Mr. A. Schott, and also by Dr. Kennerly. It was not observed by Dr. Kennerly until he reached the Valley of the Rio Grande, nor did he meet with any farther west, in any part of Mexico, than San Bernardino, in Sonora. Though closely resembling in its habits the Scaly Partridge, (*Callipepla squamata*), and in some instances occupying the same districts, he never found the two species together.

According to Mr. J. H. Clark, this species was not met with east of the Rio Grande, nor farther south than Presidio del Norte. Unlike the *squamata*, it is very common for this species to sit on the branches of trees and bushes, particularly the male, where the latter is said to utter the most sad and wailing notes. They are so very tame as to come about the Mexican towns, the inhabitants of which, however, never make any effort to capture them. They only inhabit wooded and well-watered regions, and are said to feed indifferently on insects or on berries; in summer they make the patches of *solanum* their home, feeding on its quite palatable fruit. When flushed, this Quail always seeks the trees, and hides successfully among the branches.

Dr. Kennerly found this beautiful species in great numbers during the march of his party up the Rio Grande. Large flocks were continually crossing the road before them, or were seen huddled together under a bush. After passing the river he met with them again so abundantly along Partridge Creek as to give rise to the name of that stream. Thence to the Great Colorado he occasionally saw them, but after leaving that river they were not again seen. They are said to become quite tame and half domesticated where they are not molested. When pursued, they can

seldom be made to fly, depending more upon their feet as a mode of escape than upon their wings. They run very rapidly, but seldom, if ever, hide, and remain close in the grass or bushes in the manner of the eastern Quail.

From Fort Yuma, on the Colorado River, to Eagle Springs, between El Paso and San Antonio, where he last saw a flock of these birds, Dr. Heermann states he found them more or less abundant whenever the party followed the course of the Gila, or met with water-holes or streams of any kind. Although they frequent the most arid portions of the country, where they find a scanty subsistence of grass-seed, mesquite leaves, and insects, they yet manifest a marked preference for the habitations of man, and were much more numerous in the cultivated fields of Tucson, Mesilla Valley, and El Paso. Towards evening, in the vicinity of the Mexican villages, the loud call-notes of the male birds may be heard, gathering the scattered members of the flocks, previous to issuing from the cover where they have been concealed during the day. Resorting to the trails and the roads in search of subsistence, while thus engaged they utter a low soft note which keeps the flock together. They are not of a wild nature—often permit a near approach, seldom fly unless suddenly flushed, and seem to prefer to escape from danger by retreating to dense thickets. In another report Dr. Heerman mentions finding this species in California on the Mohave desert at the point where the river empties into a large salt lake forming its terminus. The flock was wild, and could not be approached. Afterwards he observed them on the Big Lagoon of New River. At Fort Yuma they were quite abundant, congregating in large coveys, frequenting the thick underwood in the vicinity of the mesquite-trees. Their stomachs were found to be filled with the seeds of the mesquite, a few grass seeds, and the berries of a parasitic plant. On being suddenly flushed these birds separate very widely, but immediately upon alighting commence their call-note, resembling the soft chirp of a young chicken, which is kept up for some time. The alarm over, and the flock once more

reunited, they relapse into silence, only broken by an occasional *cluck* of the male bird. Once scattered they cannot be readily started again, as they lie close in their thick, bushy, and impenetrable coverts. Near Fort Yuma the Indians catch them in snares, and bring them in great numbers for sale.

Dr. Samuel W. Woodhouse first met with this species on the Rio Grande, about fifty miles below El Paso, up to which place it was extremely abundant. It was by no means a shy bird, frequently coming about the houses; and he very often observed the males perched on the top of a high bush, uttering their peculiarly mournful calls. He found it in quite large flocks, feeding principally on seeds and berries. It became scarce as he approached Dona Ana, above which place he did not meet with it again. He again encountered it, however, near the head of Bill Williams River and afterwards on the Tampia Creek, and it was exceedingly abundant all along the Great Colorado. He was informed that they are never found west of the Coast Range, in California. About Camp Yuma, below the mouth of the Gila River, they were very abundant and very tame, coming quite near the men, and picking up the grain wasted by the mules. They are trapped in great numbers by the Indians.

This Quail is given by Mr. Dresser as occurring in Texas, but not as a common bird, and only found in certain localities. At Muddy Creek, near Fort Clark, they were not uncommon, and were also found near the Nueces River.

Dr. Coues (*Ibis*, 1866), in a monograph upon this species, describes its carriage upon the ground as being firm and erect, and at the same time light and easy, and with colors no less pleasing than its form. He found them to be exceedingly abundant in Arizona, and soon after his arrival in the Territory he came upon a brood that was just out of the egg. They were, however, so active, and hid themselves so dexterously that he could not catch one. This was late in July, and throughout the following month he met broods only a few days old. The following spring he

found the old birds mated by April 25, and met with the first chick on the first of June. He infers that this species is in incubation during the whole of May, June, July, and a part of August, and that they raise two, and even three, broods in a season. A single brood sometimes embraces from fifteen to twenty young, which by October are nearly as large as their parents. While under the care of the latter they keep very close together, and when alarmed either run away rapidly or squat so closely as to be difficult to flush, and, when forced up, they soon alight again. They often take to low limbs of trees, huddle closely together, and permit a close approach. The first intimation that a bevy is near is a single note repeated two or three times, followed by the rustling of leaves as the flock starts to run.

These birds are said to be found in almost every locality except thick pine-woods without undergrowth, and are particularly fond of thick willow copses, heavy chaparral, and briery undergrowth. They prefer seeds and fruit, but insects also form a large part of their food. In the early spring they feed extensively on the tender fresh buds of young willows, which give to their flesh a bitter taste.

This Quail is said to have three distinct notes,—the common cry uttered on all occasions of alarm or to call the bevy together, which is a single mellow clear "chink," with a metallic resonance, repeated an indefinite number of times; then a clear, loud, energetic whistle, resembling the syllables *killink-killink*, chiefly heard during the pairing season, and is analogous to the *bob-white* of the common Quail; the third is its love-song, than which, Dr. Coues adds, nothing more unmusical can well be imagined. It is uttered by the male, and only when the female is incubating. This song is poured forth both at sunrise and at sunset, from some topmost twig near the spot where his mate is sitting on her treasures; and with outstretched neck, drooping wings, and plume negligently dangling, he gives utterance to his odd, guttural, energetic notes.

The flight of these birds is exceedingly rapid and vigor-

ous, and is always even and direct, and in shooting only requires a quick hand and eye.

In his journey from Arizona to the Pacific, Dr. Coues found these birds singularly abundant along the Valley of the Colorado; and he was again struck with its indifference as to its place of residence, being equally at home in scorched mesquite thickets, dusting itself in sand that would blister the naked feet, the thermometer at 117° Fah. in the shade, and in the mountains of Northern Arizona, when the pine boughs were bending under the weight of the snow. He also states that Dr. Cooper, while at Fort Mohave, brought up some Gambel's Quails by placing the eggs under a common Hen, and found no difficulty in domesticating them, so that they associated freely with the barnyard fowls. The eggs, he adds, are white, or yellowish-white, with brown spots, and were hatched out in twenty-four days. The nest is said to be a rather rude structure, about eight inches wide, and is usually hidden in the grass. The eggs number from twelve to seventeen.

Captain S. G. French, quoted by Mr. Cassin, writes that he met with this species on the Rio Grande, seventy miles below El Paso, and from that point to the place named their numbers constantly increased. They appeared to be partial to the abodes of man, and were very numerous about the old and decayed buildings, gardens, fields, and vineyards around Presidio, Isoleta, and El Paso. During his stay there in the summer of 1851, every morning and evening their welcome call was heard all around; and at early and late hours they were constantly to be found in the sandy roads and paths near the villages and farms. In the middle of the hot summer days, however, they rested in the sand, under the shade and protection of the thick chaparral. When disturbed, they glided through the bushes very swiftly, seldom resorting to flight, uttering a peculiar chirping note. The parents would utter the same chirping cry whenever an attempt was made to capture their young. The male and female bird were always found with the young, showing much affection for them, and even endeav-

oring to attract attention away from them by their actions and cries.

Colonel McCall (Proc. Phil. Ac., June, 1851), also gives an account of this bird, as met with by him in Western Texas, between San Antonio and the Rio Grande River, as well as in New Mexico. He did not fall in with it until he had reached the Limpia River, a hundred miles west of the Pecos, in Texas, where the *Acacia glandulosa* was more or less common, and the mesquite-grasses and other plants bearing nutritious seeds were abundant. There they were very numerous and very fat, and much disposed to seek the farms and cultivate the acquaintance of man. About the rancho of Mr. White, near El Paso, he found them very numerous, and, in flocks of fifty or a hundred, resorting morning and evening to the barnyard, feeding around the grain-stacks in company with the poultry, and receiving their portion from the hand of the owner. He found them distributed through the country from the Limpia to the Rio Grande, and along the latter river from Eagle Spring Pass to Dona Ana.

The same careful observer, in a communication to Mr. Cassin, gives the western limit of this species. He thinks it is confined to a narrow belt of country between the 31st and 34th parallels of latitude, from the Pecos River, in Texas, to the Sierra Nevada and the contiguous desert in California. It has not been found on the western side of these mountains.

Colonel McCall met with it at Alamo Mucho, forty-four miles west of the Colorado River. West of this stretches a desolate waste of sand,—a barrier which effectually separates this species from its ally, the California Quail.

This species is known to be abundant in the country around the sources of the Gila River, and has also been found along that river from the Pimo villages to its mouth, and there is no doubt that it inhabits the entire valley of the Gila. It was also common along the Colorado River, as far as the mouth of the Gila, and has been met with in that valley as high up as Tampia Creek, latitude 34°.

Colonel McCall regards this species as less wild and vigilant than the California species. It is later in breeding, as coveys of young California Quail were seen, one-fourth grown, June 4, while all the birds of Gambel's were without their young as late as June 16. The cry may be imitated by slowly pronouncing in a low tone the syllables *kaa-wale, kaa-wale.* When the day is calm and still, these notes may be heard to a surprising distance. This song is continued, at short intervals, in the evening, for about an hour. Later in the season when a covey is dispersed, the cry for reassembling is said to resemble *qua-el qua-el.* The voice of this bird at all seasons bears a great resemblance to that of the California Quail, but has no resemblance to that of the eastern *Ortyx Virginiana.* In their crops were found the leaves of the mesquite, coleopterous insects, wild gooseberries, etc.

An egg of this species, taken by Dr. Palmer at Camp Grant, measures 1.25 inches in length by 1.00 in breadth. The ground-color is a cream white, beautifully marked with ragged spots of a deep chestnut. In shape it closely corresponds with the egg of the California Partridge.—*North American Birds, Baird, Brewer and Ridgway, Vol. III.*

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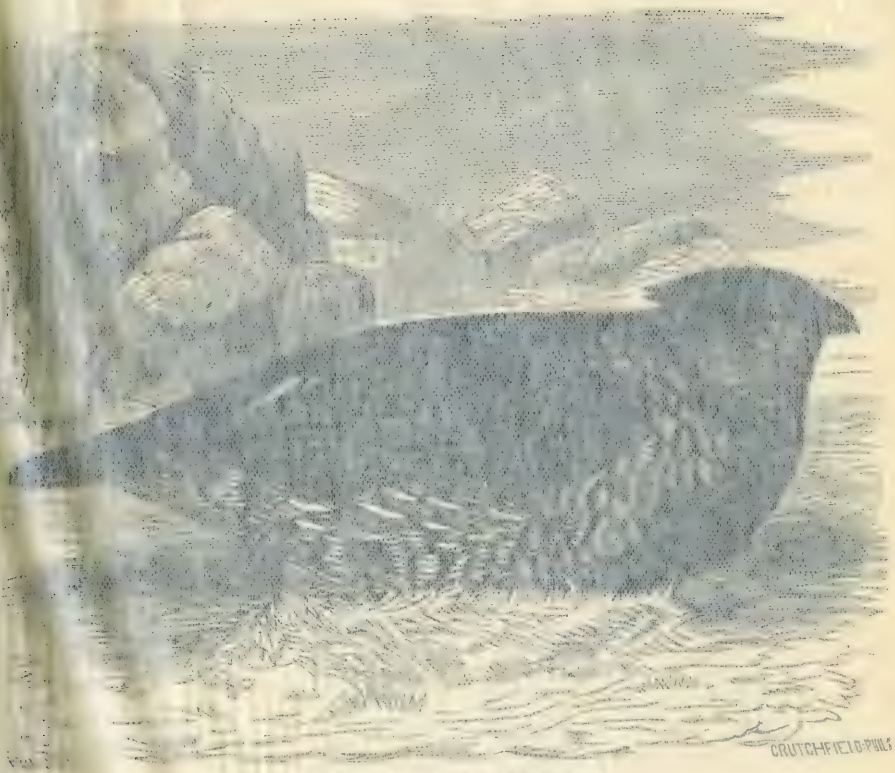
## SCALED OR BLUE PARTRIDGE.

Callipepla Squamata.—Gray.

Sp. Char.—Head with a full, broad, flattened crest of soft elongated feathers. Prevailing color plumbeous-gray, with a fine bluish caste on jugulum and nape, whitish on the belly, the central portion of which is more or less tinged with brownish; sometimes a conspicuous abdominal patch of dark rusty, the exposed surface of the wings tinged with light yellowish-brown, and very finely and almost imperceptibly mottled. Head and throat without markings, light grayish-plumbeous; throat tinged with yellowish-

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Callipepla Squamata.—Gr.

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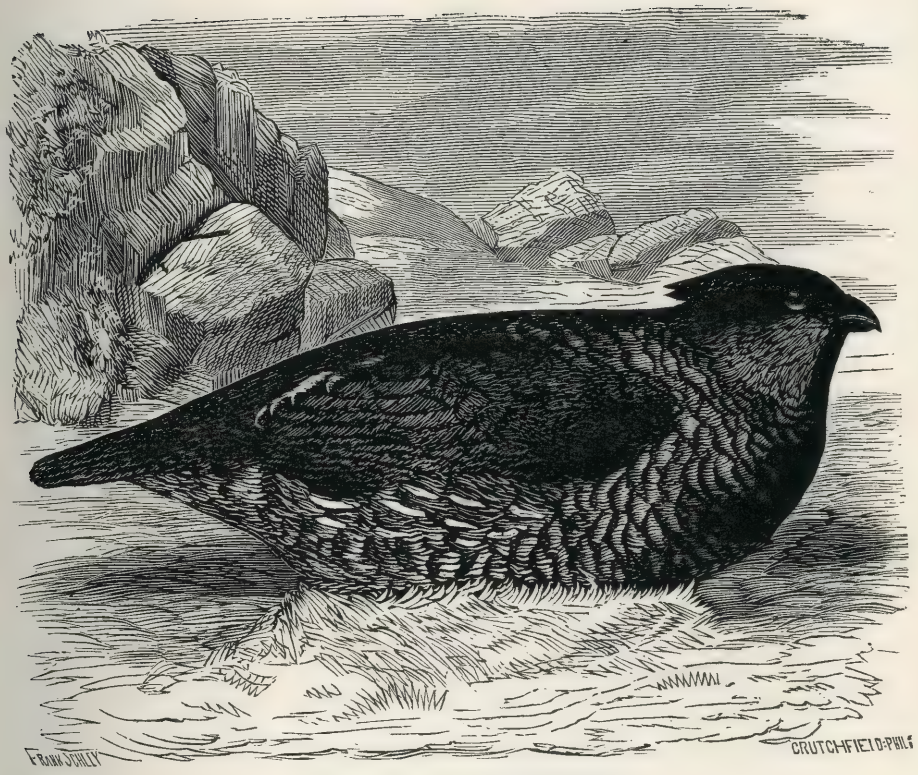


SCALED, OR BLUE PARTRIDGE.

brown. Feathers of neck, upper part of back, and under parts generally, except on the sides and behind, with a narrow but well defined margin of blackish, producing the effect of imbricated scales. Feathers on the sides streaked centrally with white. Inner edge of inner tertials, and tips of long feathers of the crest, whitish. Crissum rusty-white, streaked with rusty. *Female* similar. Length, 9.50; wing, 4.80; tail, 4.10.

Hab.—Table-lands of Mexico and Valley of Rio Grande of Texas. Most abundant on the high broken table-lands and mesquite plains.—*Baird, Brewer and Ridgway.*

Habits.—The description of the habits of this Partridge is as described in the "North American Birds," by Baird, Brewer and Ridgway. They state: This bird was first described as a Mexican species in 1830, by Mr. Vigors. For a long while it has been an extremely rare species in collections, and its history, habits, and distribution remained unknown until the explorations of the naturalists made in the survey under the direction of the national government. It was first noticed within the territory of the United States by Lieutenant Abert, Topographical Engineer, who, in his Report of the examination of New Mexico, furnished several notes in relation to this species. In November, 1846, he mentions that, after having passed through Las Casas, while descending through a crooked ravine strewn with fragments of rocks, he saw several flocks of this species. They were running along with great velocity among the clumps of the kreosote plant. At the report of the gun only three or four rose up, the rest seeming to depend chiefly on their fleetness of foot. Their stomachs were found to be filled with grass-seeds and hemipterous insects.

Captain S. G. French, in notes quoted by Mr. Cassin, mentions meeting with these birds, in the same year, near Camargo, on the Rio Grande. At Monterey none were seen; but on the plains of Agua Nueva, a few miles south of Saltillo, they were observed in considerable numbers. He afterwards met with them on the Upper Rio Grande, in the vicinity of El Paso.

Though found in the same section of country with Gambel's Quail, they were not observed to associate together in the same flock. Their favorite resorts were sandy chaparral and mesquite bushes. Through these they ran with great swiftness, resorting only, when greatly alarmed by a sudden approach, to their wings. They were very shy, and were seldom found near habitations, though once a large covey ran through his camp in the suburbs of El Paso.

Colonel McCall (Proc. Phil. Ac., V., p. 222) mentions meeting with this species throughout an extended region, from Camargo, on the Lower Rio Grande, to Santa Fe. They were most numerous between the latter place and Dona Ana, preferring the vicinity of water-courses to interior tracts. They were wild, exceedingly watchful, and swift of foot, eluding pursuit with surprising skill, scarcely ever resorting to flight even on the open sandy ground. For the table they are said to possess, in a high degree, the requisites of plump muscle and delicate flavor.

In a subsequent sketch of this species, quoted by Mr. Cassin, the same writer gives as the habitat at the entire Valley of the Rio Grande,—a territory of great extent from north to south, and embracing in its stretch between the Rocky Mountains and the Gulf of Mexico every variety of climate. This entire region, not excepting even the mountain valleys covered in winter with deep snow, is inhabited by it. It was found by him from the 25th to the 38th degree of north latitude, or from below Monterey, in Mexico, along the borders of the San Juan River, as high up as the Taos and other northern branches of the Rio Grande. He also found it at the head of the Riado Creek, which rises in the Rocky Mountains and runs eastwardly to the Canadian.

Wherever found, they are always resident, proving their ability to endure great extremes of heat and cold. In swiftness of foot, no species of this family can compete with them. When running, they hold their heads high and keep the body erect, and seem to skim over the sur-

face of the ground, their white plume erected and spread out like a fan.

On the Mexican side of the Rio Grande this species is found farther south than on the western bank, owing to the rugged character of the country. In Texas its extreme southern point is a little above Reinosa, on the first highlands on the bank.

Don Pablo de la Llave, a Mexican naturalist, states, in an account of this species, (Registro Trimestre, I., p. 144, Mexico, 1832), that he attempted its domestication in vain. In confinement it was very timid, all its movements were rapid, and, although he fed his specimens for a long time each day, they seemed to become more wild and intractable. It was found by him in all the mesquite regions of Northern Mexico.

Specimens of this Partridge were taken near San Pedro, Texas, by Mr. J. H. Clark, and in New Leon, Mexico, by Lieutenant Couch. According to Mr. Clark, they are not found on the grassy prairies near the coast. He met with them on Devil's River, in Texas, where his attention was at first dirst directed to them by their very peculiar note, which, when first heard, suggested to him the cry of some species of squirrel. In the Valley of the Lower Rio Grande he also met with these birds in companies of a dozen or more. Their food, on the prairies, appeared to be entirely insectivorous; while on the Lower Rio Grande all the specimens that were procured had their bills stained with the berries of the opuntia. They were not shy, and would rather get out of the way by running than by flying. At no time, and under no circumstances, were they known to alight in bushes or in trees. They were only known to make mere scratches in the ground for nests, and their situations were very carelessly selected. Young birds were found in June and in July.

Lieutenant Couch first met with this species about sixty leagues west of Matamoras, and not until free from the prairies and bottom-land. It was occasionally noticed, ap-

parently associating with the *Ortyx texana*, to which it is very similar in habit.

Dr. Kennerly found them everywhere where there was a permanent supply of fresh water, from Limpia Creek, in Texas, to San Bernardino, in Sonora. They were met with on the mountain sides, or on the hills among the low mesquite-bushes and barrea. They apparently rely more upon their legs than upon their wings, ascending the most precipitous cliffs or disappearing among the bushes with great rapidity.

The most western point at which Dr. Heermann observed this species was the San Pedro River, a branch of the Gila, east of Tucson. There a flock of these birds ran before him at a quick pace, with outstretched necks, heads elevated, crests erect and expanded, and soon disappeared among the thick bushes that surrounded them on all sides. After that they were seen occasionally until they arrived at Lympia Springs. Lieutenant Barton informed Dr. Heermann that he had procured this species near Fort Clark, one hundred and twenty miles west of San Antonio, where, however, it was quite rare. It was found abundantly on the open plains, often starting up before the party when passing over the most arid portions of the route. They also seemed partial to the prairie-dog villages. These, covering large tracts of ground destitute of vegetation, probably offered the attraction of some favorite insect.

Dr. Woodhouse met with this species on only one occasion, as the party was passing up the Rio Grande, at the upper end of Valleverde, on the west side of the river, on the edge of the sand-hills, feeding among the low bushes. They were exceedingly shy and quick-footed. He tried in vain to make them fly, and they evidently preferred their feet to their wings as a means of escape. He was told that they were found above Santa Fe.

Mr. Dresser found this species on the Rio Grande above Roma, and between the Rio Grande and the Nueces they were quite abundant; wherever found, they seemed to have the country to themselves, to the exclusion of other spe-

MESSENA PARTRIDGE.

cies. He reports them as very difficult to shoot, for the reason that, whenever a bevy is disturbed, the birds scatter [illegible] dodge through the bushes like rabbits, so as soon to be out of reach. He has thus seen a flock of ten or fifteen disappear so entirely as to render it impossible to obtain a single one. If left undisturbed, they commence their call-note, which is not unlike the chirp of a chicken, and soon reunite. It was utterly out of the question to get them to rise, and the only way to procure specimens was to shoot them on the ground. Near the small village to Mexico he found them very tame; and at Presidio, on the Rio Grande, he noticed them in a corral, feeding with some poultry. He did not meet with their eggs, but they were described to him, by the Mexicans, as dull white with minute reddish spots.

The egg of the *Callipepla squamata* is regularly oval [illegible] more elongated than [illegible] of this family. It measures 1.35 inches in length by .95 in breadth. Its ground color is a creamy white, and its surface is minutely freckled with specks of a pale drab.

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## MASSENA PARTRIDGE.

Cyrtonyx massena.—Gould.

Sp. Char.—*Male.*—Head striped with white, black, and [illegible] color, chin black. Feathers above streaked centrally with whitish, those on the outer surface of the wings with two series of rounded black spots. Central line of breast and belly dark chestnut; the abdomen, thighs, and [illegible] black, the sides of breast and body [illegible] color, with round white spots. Legs blue. Length, 8.75; wing, 7.00; tail, 2.50.

*Female.*—Prevailing color light [illegible] the [illegible] parts barred and streaked as in the male. Head

MESSENA PARTRIDGE.

cies. He reports them as very difficult to shoot, for the reason that, whenever a bevy is disturbed, the birds scatter, and, running with outstretched necks and erected crests, dodge through the bushes like rabbits, so as soon to be out of reach. He has thus seen a flock of ten or fifteen disappear so entirely as to render it impossible to obtain a single one. If left undisturbed, they commence their call-note, which is not unlike the chirp of a chicken, and soon reunite. It was utterly out of the question to get them to rise, and the only way to procure specimens was to shoot them on the ground. Near the small villages in Mexico he found them very tame; and at Presidio, on the Rio Grande, he noticed them in a corral, feeding with some poultry. He did not meet with their eggs, but they were described to him, by the Mexicans, as dull white, with minute reddish spots.

The egg of the *Callipepla squamata* is regularly oval, being much more elongated than with any other species of this family. It measures 1.35 inches in length by .95 in breadth. Its ground color is a creamy white, and its surface is minutely freckled with specks of a pale drab.

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## MASSENA PARTRIDGE.

Cyrtonyx massena.—Gould.

Sp. Char.—*Male.*—Head striped with white, black, and lead color; chin black. Feathers above streaked centrally with whitish, those on the outer surface of the wings with two series of rounded black spots. Central line of breast and belly dark chestnut; the abdomen, thighs, and crissum black; the sides of breast and body lead color, with round white spots. Legs blue. Length, 8.75; wing, 7.00; tail, 2.50.

*Female.*—Prevailing color light vinaceous-cinnamon, the upper parts barred and streaked as in the male. Head

without white or black stripes. Sides with a few narrow, irregular streaks of black.

*Young.*—Somewhat similar to the adult female, but lower parts whitish, the feathers, especially on the breast, with transverse blackish spots on both webs.

*Chick.*—Head dingy white, with a broad occipital elliptical patch of chestnut-brown, and a blackish streak behind the eye. Above rusty-brown, obscurely spotted with black; a white stripe on each side of the rump. Beneath almost uniform dull white.

HAB.—Chiefly on the Upper Rio Grande from the high plains of the Pecos. Fort Whipple, Arizonia; Northern Mexico, southward, on the west coast, to Mazatlan.—*Baird, Brewer and Ridgway.*

HABITS.—Baird, Brewer, and Ridgway's description of this bird's habits, in the North American Birds, is as follows: "This Quail was first met with by Lieutenant Couch in the canon Guyapuco, about twelve leagues south of Monterey. Though rather shy, they seemed quite at home in the cultivated fields and stubbles of the ranches."

Mr. Clark first noticed the species among a flock of the *Ortyx texana.* Once, on flushing a covey of the latter, a bird was seen to remain behind, and showed no inclination to follow the rest. It attempted to hide in the grass, but did not fly, and, when shot, proved to be a Massena Quail. He says they occur either in pairs or in flocks, and when once flushed fly farther than the Virginia Quail, but do not lie so close. They may be approached within a few feet, and followed up, particularly when in pairs, running along before one like so many domestic fowls. They are of quiet as well as of retired habits, and a subdued though sharp note is the only noise that Mr. Clark ever heard them make, and that only when frightened. He has known them to be pursued, and all the barrels of a six shooter fired one after another without alarming them; and they were forced to fly at last only by an attack of stones and clubs. He first met with them in the neighborhood of San Antonio, and found them thence sparsely distributed as an inhabitant,

both of prairies and mountains as far westward as Sonora. They are wilder than the Scaled Partridge, are less conspicuous and noisy, and are never seen in flocks, or, like the latter, living about old camps. Their haunts are generally far removed from the habitations of man, and the indifference they sometimes manifest to his presence seems to be due to ignorance of the danger from the power of that enemy. Though distributed over the same country as the *C. squamata*, they are never found in such barren regions, always seeming to prefer the districts most luxuriantly covered with vegetation.

Dr. C. B. R. Kennerly states that this bird was never seen farther south in Texas than Turkey Creek. In that vicinity it was very common, and it also occurred at various points thence to the Rio Grande. In the valley of this river it was very rarely seen, giving way apparently to the Scaly and to Gambel's Partridge. West of the river it was very common, as far as the party travelled, wherever there was a permanent supply of fresh water. In the valley of the Santa Cruz River and among the adjacent hills it was extremely abundant. In the months of June and July it was observed there always in pairs, while in Texas, in the months of October and November, it was found in very large flocks, sometimes of various ages, from the very small and partly fledged to the full grown bird. When hunted, they hide very closely in the grass, and Dr. Kennerly has often known the Mexican soldiers in Sonora kill them with their lances by striking them either while on the ground or just as they rise. Some of these men were very expert in the business, and obtained a good many in the course of a day's travel.

Dr. Woodhouse met with this species a few miles above the head of the Rio San Pedro, where he secured a single specimen. He was informed by Captain S. G. French that when he first passed over exactly the same route in 1849, he met with a number of them in different localities,—at the head of San Pedro, Howard Springs, and also at Eagle Springs,—showing evidently that they have a range over

the country lying between the Rio Grande and the San Pedro Rivers. He also stated that he had never met with any near the settlements, but always among the wild, rocky, and almost barren hills of that country. They are more sociable and not so shy as the other species of this family. Their food appears to be principally insects.

Mr. Dresser states that this bird is locally known as the Black Partridge. For some time he sought for it near San Antonio without success, but ultimately found it, in November, among the Bandera Hills. In its habits he states it is more like the Texan Quail than any other; but on the wing it is easily distinguished, it flies so heavily, though very swiftly. When disturbed, they squat very close, and will not move until approached very closely, when they generally rise up from under one's feet. He did not meet with this Quail in any other part of Texas than Bandera country, but was told that it is abundant in the hilly country at the head of the Leona, and that it is also found near Laredo.

In some remarks on the birds of Western Texas, published in the Proceedings of the Philadelphia Academy in 1851, Colonel McCall gives the first information to the public touching the habits of this interesting species. We learn from his narrative that it was not met with by him before crossing the San Pedro River, but that it was soon after seen in the rocky regions into which he then entered; and thence as far as the Rio Pecos, a distance of one hundred and forty miles westwardly, it was frequently seen, though it was not anywhere very common. This entire region is a desert of great extent, north and south; the general face of the country is level, and produces nothing but a sparse growth of sand plants. Water was found only at long intervals, and except at such points there was apparently neither food nor cover. There, among projecting rocks on the borders of dry gullies, or in loose scrub, this bird was met with by Colonel McCall.

The habits of this species appeared to him to be different from those of any other kind of Partridge he had ever met

with. They were in coveys of from eight to twelve individuals, and appeared to be simple and affectionate in disposition. In feeding they separated but little, keeping up all the while a social *cluck*. They were so gentle as to evince little or no alarm on the approach of man, hardly moving out of the way as they passed, and only running off or flying a few yards, even when half their number had been shot. Colonel McCall was of the opinion that they might, with very little difficulty, be domesticated, though naturally inhabiting a barren waste nowhere near the habitation of man. The call-note is spoken of as very peculiar. The bird was not seen by his party after crossing the Pecos River. Mr. Gould, without any information in regard to the habits or economy of this species, in his Monograph of American Partridges, judging from the comparative shortness of the toes and the great development of the claws, ventured the opinion that the habits would be found very different from those of other members of the family, which opinion is thus confirmed. Mr. Cassin thought he could trace in the circular spots, numerous in the lower part of the body, an analogy in character to the Guinea-fowls, which is further shown by their habit of continually uttering their notes as they feed, and by other similarity in their manners.

Captain S. G. French, cited by Mr. Cassin, mentions meeting with this Partridge in the summer of 1846, when crossing the table-lands that extend westwardly from San Antonio, in Texas, to New Mexico. On the sides of a high rocky mountain near the summit, he observed several of them only a few feet in advance of him. They were running along over the fragments of rocks and through the dwarf bushes, which grew wherever there was sufficient soil. He was attracted by their handsome plumage and their extreme gentleness. A few days after, when encamped on the head-waters of the river, he again met with a covey, and from that point occasionally encountered them on the route to the Pecos River, a distance of over a hundred miles. He did not meet with them again until he

came to Eagle Springs, in a mountainous region about twenty-five miles from the Rio Grande. In the spring of 1851, on the same route, he saw only two of these birds, and was led to the belief that they are not at all numerous. They appeared to inhabit the rocky sides of the mountains and hills, in the desolate region of elevated plains west of the fertile portions of Texas. In no instance did he meet with any of these birds near the settlements. Wild and rocky hillsides seemed to be their favorite resort, where trees were almost unknown and all vegetation was very scant. The coveys showed but little alarm on being approached, and ran along over the rocks, occasionally attempting to secrete themselves beneath them. In this case they could be approached to within a few feet. When startled by the firing of a gun, they fly but a few yards before again alighting, and exhibit but little of that wildness peculiar to all the other species of Partridge. The contents of the crop in Captain French's specimens consisted exclusively of fragments of insects, principally grasshoppers. No trace whatever of food of a vegetable character was found.

Don Pablo de la Llave, quoted by Mr. Cassin, furnishes the following account of the habits of this Partridge, observed by him in specimens taken near the City of Mexico.

"It is only a few days since the third species has been brought to me. It is rather smaller than the former, (*C. squamata,*) and its deportment is entirely different. It carries its head habitually resting on its shoulders, the neck being excessively small and deflexed, and in everything it shows an amiability, and, so to speak, kindness of character (*una bondad de caracter*), which is not found in any other species of this genus, and it is naturally so tame and domestic as to permit itself to be caught with the hand. These birds are always united, forming a covey, and whenever one is separated the others follow it. They do not, like others, wish to sleep on elevated places, but sit on the ground, drawing very near together. Their notes, which

are not varied, are very low and soft, and I have never heard loud cries from the male. When they are frightened they show much activity and swiftness; at other times their gait and movement are habitually slow and deliberate, carrying the crest puffed up. (*Espayada*)."

## THE GUN; HOW TO CHARGE; SIZE OF SHOT.

THE gun for shooting Partridges, whether breech or muzzle loader, must, to my mind, be a short barrel gun, and No. 12, 13 or 14 guage, and about eight pounds weight. The length of barrel must not be more than twenty-nine inches. This size of guage, and weight of gun and length of barrel, day in and day out, under all circumstances, in the open field, in bogs, swamps, woodland, and in entangled vines and thickets, and in brush and bushes, I have found in my experience to be the best and most desirable. For a gun of this description I would recommend as the best killing charge, in my opinion, for shooting Partridges, to be:

For a 12 guage, 3 drachms of powder, flask measure, and 1½ ounces of shot.

For a 13 or 14 guage, 3 drachms of powder, 1¼ ounces of shot.

As the best killing size of shot for shooting Partridges, I would recommend No. 8 for October, No. 7 for November, No. 6 for December and the season through.

## HOW TO AIM, AND SHOOT.

TO shoot Partridges on the wing, or any kind of game that is moving rapidly, it is not necessary to close one eye to take aim. Game can be killed as well, and as quick, if not quicker, by the sportsman, with both eyes wide open. The quickest shot is the best; the quickest aim makes the best shooting with a shot-gun. In shooting fast-flying birds on the wing, or any kind of game that is moving rapidly, aim with both eyes wide open, and follow the game with the eyes, keeping them wide open, and riveted on the object you are shooting at. Don't wink, or bat the eyes, but keep them firmly fixed with penetrating force on the flying, or moving object of your aim, and draw the trigger of the gun only by the dictation of the eyes. Under no other circumstances allow your finger to draw the trigger, except by the promptings of the eyes. The eyes, when properly fixed upon a moving object, are seldom wrong in their aim, and if the finger obeys the promptings of the eyes, the trigger is most always drawn correctly. Concert of action must be with brain, finger, arm, and eyes. These movements, in obeying the eyes, must be as instantaneous as an electric shock. The concert of action must be as quick as a flash of lightning. When the eyes say fire, brain, finger, and arm must obey the command without an instant's deliberation. By the slightest variation of the finger in drawing the trigger at this critical moment, the steadiness of the aim will be lost—consequently the game is missed. If a Partridge springs, pitch the gun quickly to your shoulder and fire—down with it without a moment's thought. This is the only way to become a keen, quick shot. The first aim when a bird is flying, is the most perfect one—don't hesitate a second, but

draw the trigger and bring it down. If a Hare bounces up under your feet, pitch the gun quickly to your shoulder, cast your eyes on it, draw the trigger and knock it over—don't poke about it. The sportsman who can shoot his game the quickest is the best shot. It is not necessary to see a bird to kill it, at the time of fire. Birds are killed by calculation, and in fact in covert shooting, three out of four birds are killed without even being seen. When a Partridge springs in a thicket which has grown up dense, and the small trees and bushes are full of leaves, it will be out of sight in an instant, and will escape, unless you knock it down by guessing, or calculation, shooting in the direction it is going, and that must be done in a moment, for you have no time to reflect, but must be as quick as a flash in judging the flight of the bird, and the distance it is off. You must also know by practice the exact location where to shoot to kill it; if the least moment of time is lost in following the course it has taken, or a moment of reflection given in judging its exact location, the bird will not be killed, but will go on, and in one second will be out of killing range of the shot. To be a keen, quick, accurate shot, you must have quick movements, and good judgment in all your actions. You should be able to handle and level the gun as quickly and readily as thought. You must be able to pitch the gun to your shoulder and point the muzzle accurately in an instant. You must be able to aim in every direction with ease, and must follow all kinds of moving objects, whether flying or running, as accurately and unerringly as a bloodhound follows his prey. You must acquire quickness in shooting fast-flying birds, and if your movements are naturally slow, you can never become a keen, quick shot. Quickness and good judgment are the landmarks to observe in shooting fast-flying game. In taking aim draw the trigger and fire, if it is only where you expect a bird to appear, or about where one has disappeared. Birds often fly when in thick undergrowth very singularly—some frequently twist and dart, others fly off in a direct line behind bushes and trees, and it requires quick move-

ments and good shooting to bring them down. These are difficulties that good judgment alone will overcome. At some seasons of the year most shooting is done in wood and thicket—in thick cover through which you can scarcely force your way. This kind of shooting requires considerable practice. One half the time you are not able to see your game, and you cannot judge correctly their position and distance, but you must learn to guess at it from all the circumstances. To kill birds under these circumstances it requires a quick eye, a clear mind, and a ready hand. The sportsman will have to serve an apprenticeship at the business before he can attain the art. Shooting birds in open fields on the wing, is entirely different from shooting birds in thick cover, such as you find in the mountains and hills, swamps, densely grown-up clearings and thickets. In open ground you can see the birds, you can judge with what velocity they are flying, you have no bushes, trees, or obstructions to interfere with you in taking aim. You will have more time to judge the distance they are off at the time of drawing the trigger. You will therefore perceive that shooting birds out in the open on the wing will admit of taking more deliberate aim than shooting under thick cover, because you have more time for deliberation. You can close one eye in taking aim with ease and shoot very accurately when a bird rises in open fields, flying in certain directions. But when shooting in woods, bushes, and thickets, or difficult places, you have no time to lose in getting aim, and the only plan to pursue to be successful, is to shoot with both eyes wide open. After years of experience in the field and in shooting all kinds of fast-flying, and running game, I offer you my method of shooting and aiming where game is found in different locations and under certain circumstances. When a bird springs in a thicket and flies straight off through bushes and hanging branches, pitch your gun quickly to your shoulder, cast both eyes on the bird, draw the trigger and fire, without an instant's deliberation. When a bird springs in thick cover and flies to the right or left behind bushes, pitch the gun quickly to

your shoulder, cast both eyes upon it, or the direction it has taken, or where it is likely to appear, or close to where it disappeared, draw the trigger and fire, and keep the gun moving for an instant after the trigger is drawn. When a bird springs close under your feet out in the open fields and goes off slowly, offering a fair shot, pitch the gun quickly to your shoulder, catch aim on the bird by looking down the barrel of the gun with one eye closed, and when your eye informs you that your aim is correct, draw the trigger and bring it down. When a Hare bounces up in open field, where you have a clear, open shot, and it gets up close under your feet and runs straight off, pitch the gun quickly to your shoulder, catch aim on the Hare by looking down the barrel with one eye closed, and when it is at the proper distance, draw the trigger and knock it over. But when a Hare bounces up in open field and darts for cover which is but a short distance off, pitch the gun quickly to your shoulder, cast both eyes upon the Hare, and draw the trigger without an instant's deliberation. When a bird springs in open field, and flies to the right or left, or rises some distance off and makes for the woods, or thicket, pitch the gun quickly to your shoulder, cast both eyes upon it, and draw the trigger and fire, and keep the gun moving for an instant after the trigger is drawn. But when a bird springs close to your feet in a thicket, or clearing, and flies out in open ground or fields and goes straight off, pitch the gun quickly to your shoulder, catch aim on it by looking down the barrel of the gun with one eye closed, and when your eye says it is at the proper distance to be killed, calmly draw the trigger and fire. When a bird springs far in advance, and comes directly towards you flying over head, and in full flight, pitch the gun quickly to your shoulder, cast both eyes upon it, draw the trigger and fire in an instant, and before it gets directly over head. But if it is driven by a north-wester, and comes directly over head, turn and pitch the gun quickly to your shoulder, catch aim on it by looking up the barrel of the gun with one eye closed, draw the trigger and fire. Where game is found in

different locations and in difficult positions, where it requires keen, quick shooting to bag it, my method is to aim and shoot with both eyes wide open. But wherever an open, flying, or running shot offers, to aim and shoot with one eye closed.

## RANGE OF THE GUN.

RANGE of the gun is the distance the shot travels from the mouth of the gun, through the air, to where they fall to the ground; and you must be able to judge with your eye the best killing distance at which to fire. Range is a rock over which many sportsmen lose their brilliancy; because they cannot correctly judge distances. I have often seen sportsmen shoot at Partridges flying too far off, and away out of killing range of the gun, thinking the birds were in killing range, and I have seen others neglect to fire upon Partridges flying a short distance off in killing range; because they would fancy the birds were out of range of the gun. To become a good shot, you must learn to be an accurate judge of distances, when in the field, and you must know by a flash of your eye the proper distance at which to fire upon a bird to bring it down. To be successful in your shooting you should be able to measure at a glance, with your eye, thirty, forty, or fifty yards distance with ease and certainty. Unless you learn to judge distances accurately when in the field, you will never become certain of stopping your birds, but will often find yourself shooting at birds too close, or far out of reach or killing range of the gun. It is more difficult to guess distances correctly in large open fields, than it is in small fields or wood. On rolling land, and on hills in mountainous districts, you are liable to make mistakes in calculating distances; especially if you have been in the habit of shooting in open fields, or on level ground. To remedy these mistakes when in the field, practice measuring distances with your eye. Measure off first thirty yards, then forty, and so continue on

up to one hundred yards, and by practicing measuring these distances with your eye, you will be able in a short time to judge the distance of thirty up to one hundred yards with ease, certainty, and with skill.

## THE KILLING RANGES OF THE GUN.

THE killing ranges of the gun, are short range, ordinary range, and long range. Short range is that distance at which you fire upon Partridges flying with certainty, without making any allowance in the aim for the shot to fall, or for the shot to be drifted from the aim by wind. All Partridges you fire at with certainty, at any distance from the spot where you stand up to twenty-five or thirty yards, are short range. Ordinary range of the gun is that distance which is something farther than short range, but not quite the distance of long range. It is that distance at which a Partridge flying is likely to be killed, by taking good aim, and covering the bird carefully. It may be said to be from twenty-five to thirty, up to the distance of forty-five yards. All shots you fire beyond the distance of forty-five yards cannot be relied upon for ordinary range. Long range is one of the killing ranges of the gun. It is that distance at which you fire upon Partridges flying, where the result would be doubtful and uncertain about your killing them, even though the aim may be ever so accurate. All distances you fire beyond forty-five yards, are long range. Whenever a Partridge is flying at such a distance off, that you are doubtful and uncertain about killing it, and it is over forty-five yards distant, it is at long range, but not out of killing range of the gun. Partridges flying may be killed at fifty, sixty, and up as high as one hundred yards distance, with most any ordinary gun, if the gun is charged properly, and you have a fair open shot. But all such distances are doubtful and uncertain. Where one Partridge flying is killed at the distance of one hundred yards, there are twenty missed. All such distances are long range; be-

cause it is doubtful, and uncertain, about killing the bird fired at, even though the aim may be ever so perfect. Twenty-five to thirty yards, is the utmost limit of distance of certainty. No gun, muzzle or breech loader, will throw shot close enough every time it is fired, to make sure of killing Partridges every time outside of these distances, I care not by whom, or how the gun is charged, nor do I care how the gun is sighted, or by whom. From the distance of thirty yards up to forty-five the chances are one out of two against killing every Partridge at which you fire. From the distance of forty-five yards up to eighty, the chances are three out of four, against killing every Partridge which you fire upon. A Partridge flying straight off presents a very small mark to hit, not more than one inch square, and this space is nearly all bone, and one small pellet of shot lodged in a Partridge's back is not always sufficient to bring it down. Sportsmen who fire long shots at Partridges should remember this.

## STRAIGHT FORWARD SHOTS.

STRAIGHT forward shots are very uncertain shots to fire, and they are the easiest of all flying shots to catch aim upon. A bad marksman will be more apt to kill upon a straight forward shot, than any other flying shot. When a Partridge rises and goes straight off, if it is within twenty-five or thirty yards, aim directly at the bird. If within twenty-five or thirty yards up to forty-five, aim to just cover the bird. From the distance of forty-five yards up to sixty, seventy, or eighty, aim two or three inches above the bird. A Partridge flying straight off is a very uncertain shot to kill—you have nothing but its rump to shoot at, and there are three chances out of four, that unless you hit it with two pellets of shot, it will not be brought down, and the chances are, that the shot will pass around it, and it will escape being hit. Straight forward shots are uncertain for the sportsman—they are not likely to hit, no matter how perfect the aim may be, and if they do hit, are not apt to kill, as the vital parts of the bird are more or less protected by the rump bone, and the bird is likely to get off with a wound, or the loss of a few feathers. I have killed Partridges flying straight off at fifty, sixty, and as high as one hundred yards distance, but they were all chance shots—where you would kill one Partridge flying straight off at one hundred yards, you would miss twenty. A Partridge is a small object when it is divested of its feathers, and when it is flying straight off it presents a very narrow and small mark to shoot at. Sportsmen when they shoot straight shots at long distances, should bear this in mind. Twenty-five or thirty yards is the very outside limit of distance of certainty to fire upon Partridges flying straight off. Beyond

these distances, notwithstanding the aim may be all right, the scattering of the shot makes it very uncertain as to killing them. To prove this statement let the sportsman place a target off thirty yards distant, and fire at it, and he will be surprised to see how widely scattered the shot strikes at that distance. Then let him take into consideration that so small a space as one inch square would be sufficient to let a Partridge through flying straight off, and he would readily be convinced how easily a Partridge could escape being hit beyond this distance. As I have already stated a Partridge flying straight off presents a small mark to hit. It is not so when it is flying around, or across to the right, or the left—you have a larger mark to shoot at, and the bird exposes all its vital parts to the fire, and one pellet of shot will be sufficient to bring it down, because the shot hits a vital part. But when a Partridge flies straight off all its vital parts are protected, and if you hit it with one pellet of shot, it is in the rump, and that would not always be sufficient to bring it down, and the only chance that is left is to break its wing. If the shot fails to do this, the bird goes on wounded, or perhaps escapes through the shot without one happening to hit. When in the field always choose a Partridge that is flying to the left to fire upon in preference to one that is flying straight off. The chances are two to one in your favor of killing the bird flying to your left. A Partridge flying straight off is a beautiful and easy mark to get aim at, and this is the reason that youug beginners, and bad marksmen, are more successful in shooting Partridges flying straight off than in any other direction, because they always shoot in a hurry—being excited, they fire upon the bird very close, at short range, so that the shot are not scattered, and if the gun happens to be pointed correctly, the bird is generally killed. But it is not so with cross shots—there must be a combination of movements to be successful in catching aim, which requires judgment, practice, and experience of years, in perfecting the eye, and in handling the gun.

## CROSS SHOTS.

CROSS Shots are lines of flight taken by birds across the sportsman, and may include oblique, curved, and the different angular flights. They may include all angles of flight a Partridge takes in flying across the sportsman, whether acute or obtuse. Cross Shots are more fatal if they hit than straight forward shots, as all the vital parts of the bird, when crossing are exposed to the fire. Never refuse to fire cross shots, as they most easily kill of all flying shots if they hit. The shot strikes harder and stronger a crossing bird, than one flying in the same direction as the shot. A Partridge flying around to the left is the best shot to fire at, and it is the easiest of all flying shots to kill; because the whole vital parts of the bird are exposed to the fire, and if one pellet of shot hits with force, the bird will be brought down and killed; and the gun being balanced in the left hand by stepping forward with the right foot, the body can be turned with ease to the left side, to aim and follow the bird in its flight. It is not so with a bird flying to the right, or over head—it is more difficult to turn the body to aim, as the gun cannot be carried to the right side, or over head as readily as to the left side. Therefore, when in the field take every opportunity to avail yourself of all the cross, or side shots you can get at Partridges flying around to the left. When a Partridge rises to the right or left of you, within twenty-five or thirty yards distance, aim directly at the bird's body and fire. If within thirty yards up to forty-five, aim to just cover the bird. From forty-five yards up to eighty aim two or three inches higher than the bird's body, or in other words, aim just a little above the bird. It is not necessary to aim in the advance of a Partridge, flying around

or across, no matter how fast it is flying, unless the wind is blowing a gale, and you are shooting across the wind—then the aim should be a little in the advance, as the case may be, especially at long range. It is not necessary to make any allowance for the motion of the bird's flight, as the shot travels from the mouth of the gun, up to the distance of thirty, to eighty yards almost instantaneously, and it would not be worth while to calculate about the motion of the bird's flight, because the shot scatters at this distance very widely, and would compass four or five feet, and one or two inches aim in front or behind the bird would not alter the case a particle. The secret in shooting cross shots lies in not arresting the impetus of the gun at the time of pulling the trigger. If the impetus of the gun is stopped, the bird will invariably be missed by the shot striking in the bird's rear. If a Partridge rises and flies to the right, step back with your right foot, and aim at its body and fire, and keep the gun moving in the line of flight of the bird for an instant after the trigger is drawn. If a Partridge rises and flies to the left, step with your right foot forward, aim at the bird's body and fire, and be sure not to arrest the impetus of the gun at the time of drawing the trigger. There is no necessity for aiming in the advance of a bird flying around, or across to be successful, as some writers allege. The secret of cross shooting, or killing a bird flying across, lies not in aiming in front of the bird, nor does it lie in aiming behind the bird, but in aiming right at the bird, and in catching perfect aim on the bird, and in holding on to the aim, and in not losing it, and by not arresting the impetus of the gun at the time of drawing the trigger.

## DESCENDING SHOTS.

DESCENDING Shots are courses of flight taken by Partridges flying downward from the sportsman, and may include all directions of flight a Partridge flying takes descending. Partridges when flushed on a hill, instead of flying straight off, more usually dart down along the side of the hill in a downward direction, and unless the sportsman takes good care he will find himself invariably missing these birds—even the fairest shots—by shooting too high, because a Partridge flying down hill is all the while lowering, and if the aim is directly at the bird, and the impetus of the gun is stopped at the time of drawing the trigger, the bird will undoubtedly be missed, as the shot will pass over the bird, being driven too high. To be successful in shooting descending shots, or Partridges flying down hill, or sinking or lowering, apply the same rules as I have given for cross shooting. If within twenty-five or thirty yards, aim directly at the bird, and fire, and so on, and always remember to keep the gun moving in the line of flight of the bird, for an instant after the trigger is drawn. Descending shots are like cross shots—nine times out of ten, it is by arresting the motion of the gun in the line of flight of the bird, at the time of drawing the trigger, that causes you to miss your mark. Sometimes Partridges fly straight off, and all of a sudden will ascend in flight over a fence, or a clump of bushes, or the like, and immediately on clearing the fence, bushes, or the like, will descend again. These minute matters, though seeming of little importance, should never be lost sight of, and it is well not to allow yourself to be thrown off of your guard. It is by these minute considerations, an observant sportsman and good shot surpasses in excellence in shoot-

ing, his companions, and fills his game bag. The secret of shooting descending shots, or a bird flying down hill, or sinking or lowering, lies not in aiming below the bird as some sportsmen affirm, nor does it lie in aiming above nor in front, nor behind the bird, but in aiming right at the bird, and in catching aim on the bird, and in not losing it; and by not stopping the motion of the gun at the time of drawing the trigger.

## OVER HEAD SHOTS.

OVER head shots are among the most difficult of all shots by which Partridges are killed on the wing, and most sportsmen who are good shots in every other particular, and can kill Partridges flying in all other directions, when they come to fire upon Partridges flying over head, invariably miss them. The fault lies in shooting directly over head, or too quickly when the bird is advancing, and not quick enough when the bird has passed over head. By handling yourself and gun quickly and swiftly, there is plenty of time to catch aim on the bird when the bird is advancing towards you, and before it gets over your head, and this is your best chance to fire upon it, to kill it, and this is the time to bring it down. But if the bird is close on you, and flying very rapidly, and coming with the wind with great velocity advancing directly over your head, and would not admit of your catching aim on it, withhold your fire, and let the bird pass over your head, then turn quickly and take a fair shot at it going off. But when a Partridge is advancing, and will admit of your taking aim at it before it gets over your head, lose no time nor opportunity, but draw the trigger and fire, and if you miss it you will have a chance to bring it down with the second barrel, after it has passed over head, by turning and taking a fair shot at it flying off. Some sportsmen seldom shoot at Partridges advancing towards them, they are under the impression that if the shot hits a bird when it is approaching, the shot will glide off of the feathers without penetrating through the skin. This is altogether a mistaken idea. I have killed hundreds of Partridges flying, coming directly towards me, and when the gun would crack the shot would knock the life right out of

them, and they would fall dead as a rock, and often I have shot them coming under full headway, right on me, and when the gun would crack, they being so close the shot would fairly riddle them, and I have often killed them flying down hill, coming directly at me, and flying so swiftly, being frightened, that when the shot would hit them, they would be coming with such velocity, that they would fall ten feet behind me, and on several occasions I have caught them when they were falling, with my hand, and have had them to fall dead at my feet. And I have even had birds that were wing-tipped, when falling, to pitch and hit me. I have killed Partridges flying in every conceivable direction, advancing towards me, or passing over my head; and I have always found, that when the gun was pointed right, and the aim correct, and the bird in killing range of certainty, it was brought down and killed. It made no difference in which direction the bird was flying, whether it was advancing towards me, or going away from me. When a Partridge has passed over head, flying in full flight, be quick in your movements, turn your body and catch aim on the bird in an instant, draw the trigger and fire. The aim should be quick, and very accurate, because the bird is in full flight going at the top of its speed, and flying very swiftly, and unless you catch aim on it, in an instant, and shoot quickly, it will get out of killing distance of certainty of the gun, and unless the aim is perfect the bird will be missed, because it is flying at an acute angle with the shot. To be successful in shooting Partridges flying over head, all you have got to do, is to aim directly at the bird, and keep up the motion of the gun with the flight of the bird, and always remember to shoot the first barrel when the bird is advancing towards you, and before it gets over your head, so if you should happen to miss your mark, you will have another chance at the bird with the second barrel, by turning and taking a fair shot at it flying off. Unless strict attention is paid to these rules, you will miss the fairest marks offered by Partridges flying over head.

## PARTRIDGE; QUAIL; BOB-WHITE.

**Ortyx, Virginianus. Var. Virginianus.—Bonap.**

SP. CHAR.—Forehead, and line through the eye and along the side of the neck, with chin and throat, white. A band of black across the vertex, and extending backwards on the sides, within the white, and another from the maxilla beneath the eye, and crossing on the lower part of the throat. The under parts are white, tinged with brown anteriorly; each feather with several narrow, obtusely V-shaped bands of black. The forepart of back, the side of the breast, and in front just below the black collar, of a dull pinkish-red. The sides of body and wing-coverts brownish-red; the latter almost uniform, without indication of mottling. Scapulars and upper tertials coarsely blotched with black, and edged internally with brownish yellow, top of head reddish; the lower part of neck, except anteriorly, streaked with white and black. Primary quills unspotted brown, tail ash. *Female* with the white markings of the head replaced by brownish-yellow; the black ones with brownish.

*Young.*—Head ashy, with a narrow post-ocular white stripe, and the crown spotted with black; throat whitish. Beneath pale dingy ash, with whitish shaft streaks, and without black bars or other markings. Above reddish or olivaceous drab, the feathers with whitish shaft-streaks, and a large black spot, mostly on upper web.

*Chick.*—Head dingy-buff; an auricular dusky elongated spot, and a vertical patch of chestnut-rufous, widening on the occiput. Length, 10.00; wing, 4.70; tail, 2.85.

Hab.—Eastern United States to the High Central Plain, Devil's River, Texas.—*Baird, Brewer and Ridgway.*

PARTRIDGE; QUAIL; BOB-WHITE.

## HABITS.

THIS beautiful game bird is well known by all sportsmen, and by most persons of our country. For in summer the loud, clear, distinctive whistle of *Bob White*, is as well-known, and familiar an utterance as proceeds from the fields. The geographical description of this bird's habits, is as described in the "North American Birds, Baird, Brewer and Ridgway." They state, this species, known in New England and in certain other parts of the country as the Quail, and in the Middle and Southern States as the Partridge,—either of which names belonging to other and quite different birds, is inappropriate,—is found throughout the Eastern portion of North America from Florida to Maine, and from the Atlantic to Texas on the South and to the Central Plains. Partially successful attempts have been made to introduce it in Utah, and its area promises to extend much farther than its original limits. This species has also been acclimated in Jamaica, and now abounds in all parts of that island. There they are said by Mr. Marsh to make no nest, but to lay on the ground, in tufts of grass, roots, or under clumps of bushes usually from twelve to twenty eggs. These are smaller than with us. This species has also been introduced into the island of St. Croix, and is now very common in almost every part of it being especially abundant in the grass lands of the Southwestern part. This bird is probably found in all the New England States, though its presence in Maine is not certain; and, if found there at all, is only met with in the extreme Southwestern part. It is also rare in Vermont and New Hampshire, and only found in the Southern portions. It is not given by Mr. Boardman, nor by Professor Verrill. Further West it has a more

PARTRIDGE. QUAIL. BOB-WHITE.

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Northern distribution, being found in Northern New York and in Southern Canada. Mr. McIlwraith gives it as resident in the neighborhood of Hamilton. In many parts of Massachusetts the Quail has become a very rare bird, owing to the ravages caused by sportsmen and the severity of winters, heavy falls of snow being frequently particularly fatal to them. In heavy falls of snow they frequently huddle together on the ground, and allow themselves to be buried in the drifts. If the snow is light, they can easily extricate themselves and run over its surface in quest of berries, and the seeds of shrubs; but if the fall be followed by a partial thaw, and a crust forms, the birds are made prisoners within its impenetrable cover, and miserably perish of hunger. In the severe winters of 1866 and 1867, large numbers of Quail thus perished throughout all parts of Massachusetts. When the snow melted, they were found, in numerous instances, crowded close togther, and embedded in the frozen drifts. Unlike most birds they never collect in large flocks, but usually move in small family groups, varying in numbers from ten to thirty, but too often reduced to a mere remnant by the inroads of the sportsman. These birds are often found in grounds more or less open, preferring those in which there is abundance of low trees and clusters of shrubs in which they can shelter themselves. The Quail is esteemed a great delicacy as an article of food, and is sought for the market by means of traps, nets and various kinds of snares, and by sportsmen with the gun and dogs. It is naturally unsuspicious, is easily approached, and in the thickly settled parts of the country its ranks are already greatly thinned. It is gradually disappearing from New England, and is now very rare in large tracts where it was once quite abundant. In some localities they have only been retained by the importation of others from a distance. They are of gentle disposition, are apparently much attached to each other both in the conjugal and in the parental relations, and always keep closely together in the small flocks associating

together. In the fall the old birds remain with their offspring of the season, and direct the movements of their family. They always keep close together, by day as well as by night.

## PAIRING AND NESTING.

SCARCELY have the winter months passed, the snow disappeared from the ground, and early in spring, when the returning sun begins to arouse the different tribes from their winter homes, and when the Wilson snipe is on the meadows, this is the season of the year when the Partridges begin their courtship. With us in Maryland, the Partridges commence mating in the month of March or April, or even earlier, or later according to the season. After mating they separate in pairs, and should the weather change, and become rough and cold or snow fall, after being separated in pairs, it is not unusual for them to reassemble into coveys again. In separating in pairs there are frequently more females than males, and more frequently more males than females. When there are more males than females, it detracts much from their production, as the overplus of males not being provided for, will single out a female, and will run, and so harass her, will not give her an opportunity to build a nest, and she will drop her eggs indiscriminately from place to place, no two together. Should there be more females than males, it does not detract so much from their production, for sometimes a single male will associate with more than one female, and on doing so, their joint products will be laid in the same nest or in one close by.

Mr. William Jacobs, living in the Linganore hills, who is a man of fair veracity, informed me that he found one of these nests, near his home. The nests were on the side of a hill, in open ground, under some dewberry vines, the two hens were setting about two feet apart, one upon fifteen, and the other seventeen eggs, making in all thirty-two eggs. He visited the nests regularly every day until

the eggs were hatched. When the females departed with their young brood they left but one egg unhatched. The Partridges build their nests in the month of May. The nest is always constructed on the ground, frequently at the foot of a stump, or by a thick tuft of grass, or bush, often in the corners of a worm fence which is grown up with grass, weeds, or briars, and frequently in the open fields, as wheat, clover or timothy. The nest is very simply constructed, it is slightly sunk below the surface of the ground. The materials consist of dry leaves and grass, or stubble and straw, and are so arranged as to form a cover with an opening at the side for an entrance, but they are as often open above, as covered. The female lays from twelve to twenty-four eggs, of a pure brilliant white color, sharply pointed at one end, and obtusely rounded at the other, and is assisted by the male in hatching them. The period of incubation I do not exactly know, but it is said to be about twenty-three days. When the eggs are placed under the domestic hen, it is said to take four weeks to hatch them. During the period of incubation, and when the female is laying, the male may be heard, a short distance off, standing on the fence, stump, log, or the low limb of a tree, keeping his paramour company, by repeating at intervals his well-known and familiar love notes, *Bob-White.* The young leave the nest as soon as they are freed from the shell, and are led around in search of food by the female, and are nestled under her wing in the same manner as a brood of young chickens. Should the little brood be come upon and surprised by an enemy, or a huntsman, or a dog, the greatest alarm and consternation take place. The female places herself in the way, fluttering along and dragging and beating the ground with her wings, as if badly wounded, at the same time using every artifice to decoy the intruder in pursuit of herself, crying at the same time notes of safety, which are instinctively understood by the young birds, who squat and hide among the grass, and keep themselves close until all danger is passed. The female after having succeeded in leading the

pursuer a short distance off, disappears in the cover by running, or spreads her wings and flies from fifty to one hundred yards and lights, and returns by a circuitous route to the place she has just abandoned, and collects around her the young brood, and leads them away to a place of safety. This well known manœuvre, which the female resorts to for the safety of her young, is well understood by all sportsmen of experience, but to the young and inexperienced, or a dog, the decoy eight times in ten proves successful. Their notes, when calling the young brood together, is a low twittering sound, very much like that of young chickens. When a covey of full grown birds, and those that are nearly so, are flushed and separated, their call note to reassemble themselves together again, is very different from the male's love notes in summer, *Bob-White.* It is a clear, loud whistle, suggestive of fear, timidity and anxiety, and is familiar and well understood by all sportsmen, as this whistle is often imitated by the sportsmen to draw a response, and the birds from their hiding places. The Partridges, with care, pains and attention, may be easily raised in confinement, and may be induced to propagate and may be trained into a condition of partial domestication. Baird, Brewer and Ridgway state that Rev. Dr. Bachman, of Charleston, S. C., succeeded in obtaining, by hatching under a Bantam Hen, a brood of young Quails. Confining them with their foster mother for a few days, they were soon taught to follow her like young chickens. They were fed at first on curds, but soon began to eat cracked Indian corn and millet. They were permitted to stray at large in the garden, one wing of each having been shortened. They became very gentle, and were in the habit of following Dr. Bachman through his house, seating themselves on the table at which he was writing, occasionally in play, picking at his hands, or running off with his pen. At night they nestled in a coop in the garden. Although these pets had no opportunity of hearing any other sounds than those of the poultry, the male birds commenced in the spring their not unmusical note of *Bob-White,* at

first low but increasing in loudness until they were heard through the whole neighborhood. Their notes were precisely like those of the wild birds. As the spring advanced the males became very pugnacious, and continued contests took place among themselves, as well as with the pigeons and the poultry that intruded on their premises. Their eggs were placed under a hen and hatched out. The experiment went no further, but was quite sufficient to demonstrate the possibility of their domestication.

Baird, Brewer and Ridgway further add, that Wilson relates that in one instance a female of this species set upon and hatched out the eggs of the common hen. For several weeks after, his informant occasionally surprised her in various parts of the plantation with her brood of chickens, on which occasion she exhibited every indication of distress and alarm; and practiced her usual manœuvres for their preservation. She continued to lead them about until they were larger than herself, and their manners had all the shyness, timidity, and alarm of young Quails.

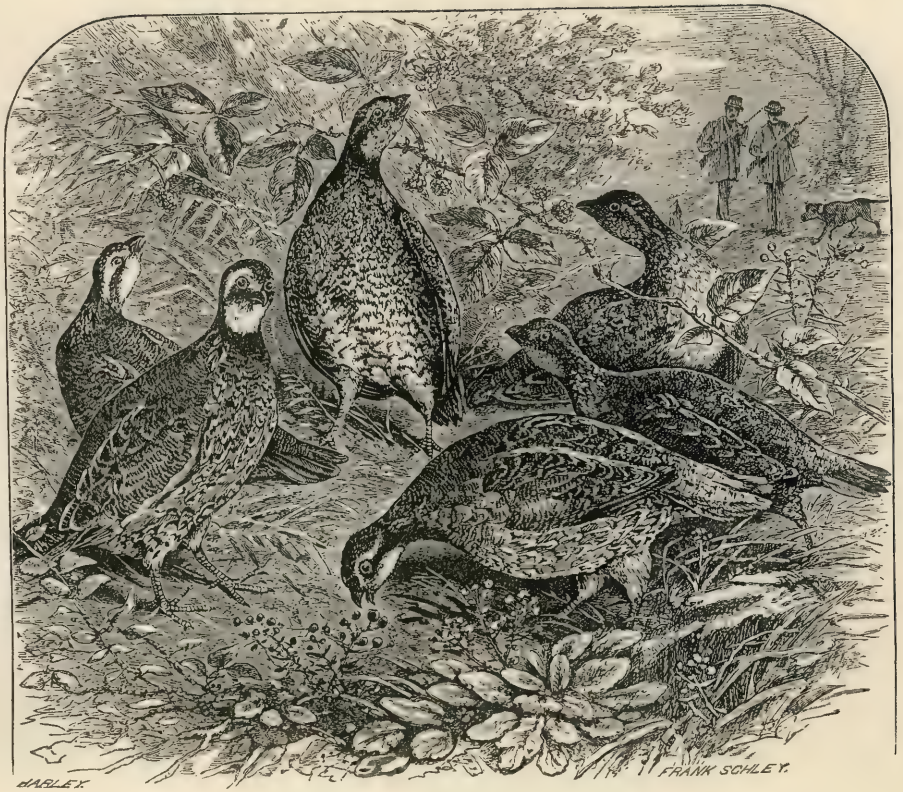
## FIRST AND SECOND BROOD.

THE natural habit of the Partridges when undisturbed is to have two broods of young in a season. If the Spring is early and favorable, they have the first brood in the latter part of June, if otherwise, in July. The second brood they have usually in August, or September, but it depends upon the season. The first brood, when about one-third grown, is taken charge of by the male, who is a very watchful and attentive guardian. When there are two broods in a season, the second brood unites with the first, and, if undisturbed, they will keep together under the guidance of their parents through winter until spring. In Maryland, and I may say in the Middle and Northern States, especially in the thickly settled and highly cultivated portions, the Partridges more frequently have one than two broods a season. This can be accounted for. The warm weather in Maryland, and in the Middle and Northern States, except in some instances, is hardly long enough to allow the females sufficient time to lay, and hatch their eggs, and have two broods in a season, before cold weather sets in, and, in the thickly settled and highly cultivated portions, the nest and eggs are constantly being trespassed upon and destroyed. So much so, that the females in many instances are set back late in the season with their first broods, and as far as I am aware, when these occurrences take place, the females content themselves usually with having only one brood in the season. The young broods the sportsmen find in October and November too small to shoot are more frequently the first and only broods that have been hatched in the season, than they are the second broods of the season, unless there

are two sizes of birds found in the covies. When this is the case, I will say nine times out of ten, then you can be sure that the smaller sizes *are the second broods that have been hatched by the females in the season.*

## ROOSTING.

THE Partridges always roost on the ground. Their favorite roosting places are the stubble fields and swamps where the ground is low, and the tall grass and rag-weed most plentiful. They roost on the outskirts of thicket and wood, in grass patches and in clearings, sheltered in the like manner, but as often on high ground sparingly covered as otherwise. When roosting they arrange themselves in a circle with their bodies closely pressed against each other, their tails forming the interior of the circle, their heads the exterior. In arranging themselves in this manner, it adds greatly to their comfort in extreme winter, also to their safety, as they present an outlook on every side against their enemies, and if they are disturbed in the night they can all fly straight off without interfering with each other. When undisturbed and the weather proves favorable, they frequently resort to the same spot, or close by to roost, for a number of nights. When going to roost it is not uncommon for them about dusk to take a short flight to an adjoining field, swamp, clearing, or the like, and settle down and roost immediately about the spot where they strike the ground. This adds greatly to their protection during the night, for they leave no trail behind, as they would when going on foot, for their enemies to follow or scent them to their roosting places. When the day is fine and clear they leave their roost at a very early hour; if rough and cold they frequently remain on their roosting places until the day is farther advanced. When leaving their roost in the morning, the whole covey travels off in search of food, or takes a short flight to some regular feeding ground.




AMERICAN PARTRIDGES; QUAILS.

## FOOD OF THE PARTRIDGES.

PARTRIDGES are chiefly granivorous, but they also feed on berries, buds, and insects. Their principal food in autumn and winter is wheat, corn, buckwheat, berries, and seed. Their favorite food is corn and buckwheat. They prefer it to any other kinds of grain, but during the shooting season they are more frequently found in swamps, thickets, clearings, and in second growth wood skirts, than [illegible] bordering wheat stubble and corn fields, and in wheat stubble, more than they are in corn and buckwheat fields. This is owing in a great measure to the want of sufficient cover, more than to the preference for the food found there. They feed on different species of berries, gum, sassafras, poke, wild cherries and the like, and are very fond of black haws, and wild chicken grapes, and eat ants, grasshoppers, and other insects. In extreme winter and in spring, when the ground is covered with snow, and food is scarce, when driven by necessity more than love, they feed on different species of seed, plants, and buds, such as rag-weed seed, and then they are said to partake of the tender buds and leaves of the marsh laurel (*Kalmia Glauca*), which may be found in the low-grounds, and the mountain laurel (*Kalmia Latifolia*), which [illegible] and browns, and in summer adorns with its beautiful flowers our unshorn primitive, wood-clad hills, and mountains, and possesses like properties as the other species. This well known evergeen inhabits all sections of the United States. It is from three to ten feet in height—the leaves possessed of poisonous narcotic properties. They are said to prove fatal to sheep and some other animals, but are eaten with impunity by deer, goats, and partridges. It is said that death has been occasioned by eating the

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flesh of Partridges and Pheasants which have fed upon them during winter. I cannot vouch for the correctness of these statements; as far as I am concerned, I have eaten hundreds of Partridges and Pheasants, and so far I have never experienced any bad consequences after having partaken of the flesh, though when I take into consideration the respectability of those, some of whom are respectable and eminent physicians, who have particularized and published in Medical Journals cases where it has proved injurious and even fatal, I am more than inclined to believe there is some foundation for these charges. Baird, Brewer and Ridgway state that in confinement they eat beechnuts, acorns, and other kinds of nuts, if broken for them. In villages where they are not molested, they become very tame, freely approach the barn-yards to feed with the poultry, and will even come at the call of their friends and pick up food thrown to them. This is especially noticeable in Florida, where the representatives of the small race of the species found there are very numerous and remarkably confiding.

## FOES OF THE PARTRIDGES.

THE Partridges, like the Pheasants, have numerous foes to contend with, and are destroyed in various ways, independent of man. To enumerate the foes which destroy them, I shall begin with the snake, which crawls and creeps by day and night, through field, wood, and brake, and is ever ready to spring upon its prey. This reptile destroys numbers of young birds before they can fly. The little sparrow hawk is a foe of the Partridges, and is a very active bird by day. It sits perched upon a fence stake, or upon a dead tree top, and there watches, and, if any young birds cross its pathway it will pounce upon them with great quickness. This little hawk only destroys the birds when they are weak and quite young. In the summer season, crows are bold, cunning, and persistent plunderers of the nest of these birds. The red and grey fox are destructive foes; they travel their rounds by day and night through woods, fields, and brakes, and with their acute sense of smell, sight, and hearing, they can readily detect these birds, and, creeping within springing distance, they leap upon them like a cat. These cunning robbers destroy great numbers of these birds, both young and old. Minks also make sad havoc among both the old and young birds, in winter as well as in summer. These nimble roaming animals mostly prey upon them in the night, and in travelling their run-ways, they search every nook, hole, and corner in their beat, and from their love of killing they destroy more than they can consume. The little weasel is a very destructive foe, it puts to death more than it can carry off. This active wiry little animal seizes its prey near the head, and the place where its teeth enter is so small a wound that it can scarcely be

perceived. The raccoon has an acute sense of smell, and a keen appetite for such food. It seldom passes a roosting covey without leaping upon them. The Pole Cat destroys large numbers of these birds, not only when pressed for food in the winter season, but in summer when the birds are young. The Chicken Hawk, Goshawk (*Astur atricapillus*) is a great foe of the Partridges. This swift, strong, bold hawk lurks around their haunts from early morn until dewy eve, and it never hesitates to sweep down and catch up a bird and make off with it almost in a breath. When they are flushed by this bird they fly in every direction, and make for thick cover, and will hide themselves in brush piles, high grass, or the like, and then they are hard to flush. Remember this, whenever you see a Chicken Hawk lurking around particular fields, and sitting about on certain trees in autumn or winter, you may then be sure that there is a covey of birds not far off, for they will haunt a covey of birds until every bird in the covey is destroyed. Of all the foes of the Partridges, I shall award the palm to the Pigeon Hawk, American Merlin, (*Falco columbarius*), as the most destructive of all the hawks. This quick flighted, bold and daring hawk, is but a trifle larger than a Partridge, but it is bold, savage and strong, and very swift and quick on the wing, and darts upon its prey with the swiftness of an arrow. I have seen it pitch as it were from the clouds, and it would cut the air when coming down after its prey, with the impetus and speed of a rocket. The daring and boldness of this hawk are remarkable. I have often shot Partridges flying in full flight and they would be darted upon by this bird and carried off, before they would reach the ground, and I have often had the pleasure, when out Partridge shooting, of stopping a Partridge with one barrel of my gun, and bringing to the ground, this quick flighted assassin with the other barrel, when it was in the act of carrying off the bird that it had seized, and I had just killed. The great horned owl (*Bubo Virginianus*), is a destructive foe. It preys upon them in the night when they are sleeping.

This monster owl glides with noiseless pinions, and sweeps and skims over fields, wood and thicket, and with the eye of faith, in the darkest nights, gobbles up its prey. Severe winters, and heavy falls of snow, are particularly fatal to the Partridge, especially if there is a heavy crust formed on the snow, for they frequently perish in its impenetrable cover, besides they are exposed to all their foes, and they are frozen to death in whole coveys; and hundreds of them perish from starvation, and many of them die from the absence of water. Heavy rains, and floods, and a long showery spell of weather in June or July is destructive to them. It spoils their eggs, and destroys many of the quite young birds. Domestic animals do the same. Mowing machines, wheat reapers, hay and grain rakes, and a close cultivation of the soil, are engines of war that wonderfully lessen the ranks of these native American game birds.

## FLIGHT OF THE PARTRIDGE.

THE Partridge is one of the swiftest birds on the wing that exists. There are but few birds that I am aware of that can excel them in rapidity of flight. The Partridge, when springing from the ground, and when on the wing, makes a loud whirring noise. This sound is produced by the construction, and rapid motion of the wings. On rising from the ground and going off, the Partridge flies by a succession of quick flaps, until they get under full headway; they then spread their wings and sail with wonderful rapidity, on well balanced pinions, usually lowering as they go until nearing the ground, then sail in a straight direction, or turn to the right, or to the left, and sweep around, where they break their fall by a few more quick flaps of the wings. With wonderful speed and command of wing, the American Partridge will fly and dart through the most intricate, entangled thicket, or brake, and even the silent leaves are often made to tremble by the electric speed of the wings of this passing bird, and it seldom makes a mistake, or gets entangled through vines, boughs, or bushes, that often intercept the flight of other birds. On being suddenly flushed the Partridge rises from the ground into the air, with great rapidity, and will rise from three to ten feet at its first spring. As the season advances, the Partridge rises wilder and swifter, on being disturbed, especially if their alarm and fright be very great. Their slowest flight is in the morning on first being found. Their swiftest and longest flights are made when flying with the wind, and fleeing from fright and danger, after having been shot at. To kill them flying at this rate of speed, you will have to bestir yourself very swiftly, yet deliberately withal, and must

have a quick eye and ready finger, and you must handle yourself and gun, and shape your movements very quickly to cut them down. When they are flushed on a mountain, or on a hill, they usually make longer flights than they do when flushed on the level ground. Their flight is considerably increased in velocity by a strong wind, and nine times out of ten, they will fly with the wind, even should they be flushed against the wind. When the wind is blowing a gale, or a north-wester, to bring them down your movements and actions must be very quick, and keen, or they will not be stopped. The flight of Partridges varies very much as regards distance, according to the ground where they are flushed, the season of the year, and the strength of the wind, and whether they have been much disturbed or not. In the first of the shooting season, when the birds are young, and have not been too much shot at, their flight rarely exceeds more than three hundred yards in distance, and many will come down inside of half this distance. In thicket and swamp, where the cover is dense, they seldom fly very far before they settle. In open country where the cover is thin, and the ground bare, they usually fly much farther on being flushed. On rolling land, or on hills, they often make very long flights, and if they once get in the habit of making long flights, they are sure to repeat them on being much disturbed. Late in the season I have often seen whole covies, when they were wild from frequent flushing, take wing from the side of a hill, and fly entirely out of sight to an adjoining hill, over the tops of the highest trees, and I have often had a quarter of a mile, or more, to walk, before reaching them again. When Partridges rise of their own free will, the whole covey flies in the same course. When flushed by a sportsman they invariably seek safety by separating. When flushed in the open fields they usually fly for thick cover, in swamps, woods, thickets, and the like, and if you are standing between them and the cover, when they are flushed, they are just as likely to fly to the right, or to the left, or over your head, as they are to fly off in a straight

direction. And on following them into such places, and springing them singly, or by twos, threes, fours or more, and firing at them when they come to the end of the cover, if you flush them there, they then are more likely to wheel and fly over your head, and go back into the cover again, than they are to go out into the open, unless there is an adjoining cover close by. And I am not aware of any shots that are more awkward to kill, than these, when they are disposed to fly in this way, especially when you are in thick second growth timber, and hugging a steep hill or mountain side, where you can scarcely stand or walk, except by using one hand and holding on to branches.

## MIGRATION—WANDERING BIRDS.

PARTRIDGES do not migrate, but similar to the Pheasant (*Bonasa umbellus*) on the approach of winter, many of them shift their quarters to thicker cover. The distance is not extensive, nor general; they rarely move, of their own free will, to any great extent from where they have been hatched, not even in quest of food, nor from the severity of the winter season. Although they do not migrate, many of them, at the commencement of autumn, are driven for miles from their former haunts, and from where they have been hatched, in various ways and from various causes. Some of the principal causes which drive them off, are ploughing up fields, where they have been hatched, and in cutting the corn off of fields where they have been in the habit of roaming, and were protecting themselves in its cover. When these changes take place, which they do regularly every autumn, many of them are compelled to travel off in search of new ground to find cover; and they often travel from one field to another, and are driven in this way for miles, from where they have been hatched, and reared. And in wandering around on strange grounds, they frequently become lost and bewildered, and often times they do not know what course to pursue, or where to go. These are the birds that we usually hear of in autumn, being scattered in the towns and villages of our country. When these birds are moving, some persons call it their running season, others calling them travelling birds. When they are moving they will not always lie for a dog to point them; they usually fly and alight, and commence running again before the dog gets up to them. Whenever you are sure that your dog is trailing a moving covey of wild and running

birds, make him go slowly; if you do not, he will be almost sure to flush them wild, and they will get up too far in advance to get any kind of a shot at them, and should they fly, it will then be a toss up whether you will find them again inside of an hour, or find them at all. When the dog is on the trail, if he attempts to run, or go fast, check him, and make him go slow, and follow him up close, and make as little noise when following as possible. When the birds come to long grass, brushwood, thicket, or swamp, there are nine chances out of ten, that then here they will stop and settle, and when the dog gets up to them and points, if he is broken properly, as he should be, so that he will obey the command, all you have to do, is to hie him in, and flush the birds and scatter them; then they will lie for the dog to point them; and if the dog goes in at the command with a rush, as he should go, this will scatter the covey, and they will fly in all directions; and when they get up fire at them, and take your chances on using them up, in marking them down, and in following after them, as soon as the gun is recharged. In this way I have often broken up many covies that were wild and running, and have had good sport with them. When the snow covers the ground, and a crust is formed on the top of it, I have seen covies act much in the same manner. The snow covers up their hiding places, and changes the appearance of their haunts, and they get confounded, and do not know where to go. They, however, all keep together, and run over its surface, and are generally very wild, and they will but seldom allow a dog to get close enough to point them, but will fly and alight, and commence running again, before the dog gets up to them. Whenever you come across covies on the snow, that are disposed to act in this way, the only plan to pursue, to be successful, is to call the dog in, and keep him behind you, and follow them up. On coming up to the covey, if they rise, fire into it, and scatter the birds. If they fly to a hill or mountain side with a southern exposure, where the snow is soft, or to a broken hillside where there are pro-

jecting rocks, where the ground is bare, or to the edge of a streamlet bank, where there are patches of bare ground, then you may follow them up, and you may have pretty good sport with them, because here, ten to one, they will lie for the dog to point them; but should they fly and alight where the snow is hard, it is only time lost to follow after them to have sport, and you may as well credit yourself with an endless tramping, and give them up.

## HAUNTS AND HABITS OF PARTRIDGES AND WHERE FOUND.

THE knowledge one sportsman possesses over another, of the haunts and habits of Partridges, is very often the difference between one man's good luck, in a day's hunt, over that of another, who hunts in a hap-hazard way, without giving these matters attention. I shall give my knowledge of the haunts and habits of Partridges, and the best places where to find these birds. In dry, fair weather, Partridges are found feeding most generally in wheat stubbles and cornfields, from sunrise until about ten or eleven o'clock in the morning. From about ten or eleven o'clock in the morning, until about three in the afternoon, they most frequently resort to the sides of fields in clumps of bushes, or in patches of wood, or along the sides of creeks that are grown up with bushes, where they go to drink, and pick up gravel, and where they often spend some time in picking, scratching, and dusting themselves. About three o'clock in the afternoon they commence to run, and feed again, and usually return back to the wheat stubbles, and cornfields, where they remain until sunset, when they go to some favorite spot to roost. They do not always roost in the same fields they feed in; they frequently take a short flight to an adjoining field or swamp, and there settle and huddle together, and remain in this position until morning. They rarely ever run after they alight, which makes them more secure from their foes, as they leave no trail behind by which they might be followed to their roosting places, and detected. On wet and foggy days, they can most frequently be found in the woods, and in thin open cover, and on high ground, and in the dryest places. In cold, windy weather, they can be

found most frequently in thick cover, where they can protect themselves from the cold and wind, and where they are exposed to the sun, as in second growth wood, along hill sides that are exposed to the south, where there are patches of grass in hollows where the rag-weed is rank and thick, and along the edges of wood, thicket, and swamp, where there are patches of weeds, grass, and briars. In hot, dry weather they most frequently resort to low ground, along swamps, creeks and ditches, in moist and cool places. When the day is wet and cold they remain on their roost until late in the morning. If pleasant and fair they leave their roosting places, and are on the move at a very early hour. If snow should fall they remain on their roosting places until the day is far advanced, and are often covered up by a deep fall. When the snow is very deep and drifted, they shelter and protect themselves along the sides of hills that are grown up with wood, and are exposed to the south, and along the streams and creek banks, where there are always more or less patches of bare ground, and where the snow soon melts. In other localities they resort to swamps, thickets, clearings, brushwood, thick sedge grass cover, and in the corners of the worm fences that are grown up with weeds and briars, and here they often remain closely huddled together, in their snowy prisons, sometimes for days.

## WITHHOLDING SCENT.

THERE are many sportsmen who believe that the American Partridge has the power of withholding its scent, on being hotly pursued by its enemies, because the very best of dogs, at times, cannot discover Partridges, even after they have been accurately marked down in places where they have been seen to settle. Very often on flushing a covey of Partridges, they fly off all well together, and after having been accurately marked down, and the full covey amounting perhaps to fifteen or twenty birds, have been seen to settle at a particular place, it frequently happens that not more than two-thirds of the birds in the covey can be flushed up again, at the place where they have been seen to settle, and the dogs fail to find and point them, even after having been closely hunted about the spot. This is a great mystery to many sportsmen, why all the birds in the covey cannot be found at the place where they alighted; and many a good dog has been unjustly lashed for not finding the birds under these circumstances. Some sportsmen account for it by supposing the birds are still at the spot where they alighted, in a state of quietude, withholding their scent from the dog, which prevents the dog from finding them. Other sportsmen account for it by supposing the birds are still at the place where they alighted, but being frightened, terror checks the secretions which are usually emitted by the bird, and which renders the dog unable to scent them. I believe neither; my observation and experience have taught me to look upon the cause, and account for it, in an entirely different way. I unhesitatingly say, that I do not believe the American Partridge possesses the power of retaining its scent from the dog, nor do I believe excessive terror checks the efflu-

vium that is given out by the bird, which enables the dog to find and point them. There are various causes why the very best of dogs at times cannot find and point Partridges, even after they have been accurately marked down, and have been seen to settle themselves at a particular spot.

A Partridge, as a general rule, when it strikes the ground, does not set quietly at the identical spot where it strikes the ground, but at the instant of its fall it walks or runs off a short distance, and hides and secretes itself so that you cannot find it. The distance it runs from the spot, where it strikes the ground and hides, as a general thing is not more than a few feet, but it frequently occurs, that they run off a long distance from the spot where they alight and hide and entirely escape pursuit. It frequently happens also outside of the general rule that a Partridge, on striking the ground, will set perfectly quiet at the very identical spot where it strikes the ground, and will not stir a peg, nor move a muscle, and on doing so, in high thick-matted grass, it often occurs there is no scent by which the dog can find it, except at the very identical spot it strikes the ground; and the dog is not likely to find it, because the scent is not dispersed sufficiently around the spot for the dog to detect it. Not that the bird is withholding its scent from the dog, and thus preventing the dog from finding it, but because the scent is confined, and covered up at a particular spot, and does not rise and diffuse itself around sufficiently to enable the dog to detect it. I have often observed on getting these birds up again, that when they would fly off, and settle in open cover, and at the moment of their fall would walk or run a few feet or so, and then hide, that immediately on coming up to the spot the dog would come down, and point them most beautifully. I have often observed on the snow, that when a Partridge alights, and runs a few feet or so, and hides under the snow, the dog is not apt to miss it, but if it pitches straight down like a stone into the snow, and remains perfectly quiet at the spot where it strikes, and is covered up by

the snow, there is no scent around that spot, and the dog is not apt to find it. It frequently happens on flushing a covey of Partridges, amounting perhaps to fifteen or twenty birds, that after they have been accurately marked down, and the full covey has been seen to settle at a particular place, on flushing the covey up again, not more than two-thirds of the birds in the covey can be flushed up at the place where they have been seen to settle, and the dogs fail to find them, even after having been closely hunted about the spot. Why all the birds in the full covey cannot be flushed up again is easily accounted for. Do not suppose that the birds all set quietly at the spot where they alight; if you do, you will be often mistaken. Sometimes they may, sometimes they may not. Do not suppose the birds are withholding the scent from the dog; if you do, you will be disappointed, for the American Partridge does not possess that power. The reason why every bird in the covey cannot be flushed is because they are not all there to flush. Some have left. It frequently happens when a covey of Partridges settles, every bird in the covey at the moment of striking the ground will remain quiet within a few feet of the spot where they alight, but this is not always the case, and do not suppose so, for I assure you it often happens that part of the birds in the covey run like race horses, directly their feet strike the ground, and in this way they oftentimes entirely escape pursuit, and when part of the covey does so, on coming up to the place where you have seen the full covey settle, the dogs will generally come to a stand and point those birds that remain around the spot where they alighted, and on getting these birds up, the dog's attention is fixed upon the birds that rise up, and is drawn immediately around the spot where they spring from, and is entirely withdrawn from the trail of that part of the covey that took to their heels and ran as soon as their feet touched the ground, and the stronger scent from the feet of so many birds that have just arisen will transcend that of the few birds that have run off, and will bewilder the dogs, and the few birds that

ran off will not be found, and will escape pursuit. But by coming up to the place, in the course of an hour or so, some of these birds may be flushed at the identical place where they took to their heels and from which they escaped, as they frequently return back to the place after the lapse of an hour or so to get together again, and on going up to the place the dogs will soon find and point them. I will give you a case in point. I recollect once while out Partridge shooting in Frederick county, Maryland, accompanied by two companions, both of whom were excellent huntsmen, and capital shots, we were in a large stubble field owned by Daniel Kolb. Running at the edge of this field was a small stream of water called Keller's branch, which runs into the Monocacy River. We were accompanied by three fine dogs and as good hunters and finders, I think, as ever winded a stubble. The first was a blood-red setter, called "Rover," which for sagacity and nose I never saw excelled. The second was snow white, except the left ear, which was gold and yellow, a pointer called "Rake," which for staunchness and trail I never saw surpassed. The third was a sky blue, a cross, (half pointer and setter,) called "Ponto," which for dash, range, wind, and speed, I have never before or since seen equaled. The day was clear, and the air clean and fresh; the red setter, "Rover," came to a point, where the ground rose slightly. The white pointer, "Rake," was busy with his head down trailing at the time close by the red setter, but on noticing him, the white dog Rake edged himself close up to the red setter, and came down flat just a little in his rear. The blue dog "Ponto" we had lost sight of at the moment, but on looking around we saw him standing on the bank of a small gully, from which he had just emerged, and seeing the white and red dog on the brow had back-pointed them. My two companions and myself advanced up to the two dogs in good style, and with due caution. Arriving at the spot, we were stationed as follows: One of my companions on the left, the other on the right, and myself occupying the centre. We advanced in front of the dogs. One bird arose, and was cut down by my com-

panion to the left. At the report of the gun, the covey arose, and it was rigidly fired into by all three of us. My companion to the left got in his shot in good style, and bagged his second bird. My companion to the right got both his first and second shots in beautifully, and bagged two birds. I got my first shot in, and bagged one bird, but the second shot I was balked in, by the bird being shot away from me by one or the other of my companions, and I fired my second shot at the balance of the covey of seven birds a long distance off. At the report of my second barrel I saw the feathers fly out of one bird among the seven, and I knew one was hit, and I called upon my companion to watch them and mark them down, at the same time doing so myself. The seven birds went on, and dropped close together in the same field, near a large locust stump, which was some two hundred yards distant. After charging our guns we followed them up. On arriving at the stump, my two dogs, Ponto and Rake, stood almost simultaneously, the third dog, Rover, back pointing a short distance off. Close by the stump stood a small clump of pokeberry bushes. Some of the branches were broken and hanging down; under these branches the ground was perfectly bare, and from there one bird sprang. I dropped it in a moment. The dogs moved at the discharge of the gun, and three more birds arose and flew in a scattered direction. One of my companions dropped one of them, and the other got the other two down. The dogs I dropped in a moment, fearing they might move the remaining three birds yet unflushed. We reloaded and bagged the four birds, and then hied on the dogs. They went up to and under the pokeberry bushes, and nosed every inch of ground over and over again where these birds sprang from, but not a feather could they find. My companions and myself marked the seven birds well and closely. Wondering what could be the matter, we made the dogs hunt very closely around the spot, but not a bird could they find. We hunted the ground over and over again, the dogs crossing and recrossing, checkering it, but not a sign of a bird could they find. We eyed

every inch of ground under the poke bushes. We hunted and kicked the stubbles around and around the spot, at least one half an hour for the three remaining birds of the seven which we marked settled at this particular spot, but in vain, and finally left the grounds in disgust and despair. We leisurely pursued our hunt through the field, and coming up to Keller's branch we rested at a small spring and ate our lunch, the dogs at the time at our heels. We spent two hours along this branch, and while we were being amused in dissecting a large turtle we had prized out of the mud from its winter quarters, we heard the calling notes of two Partridges, apparently sounding as if they came from the spot we had left two hours before. I asked my two companions to go back with me to the small clump of poke bushes again, which they both readily assented to. We took the field, the blue dog Ponto leading the van. On getting up to the poke bushes Ponto made a point. I called to Rake and Rover, who were running wild, and they turned their range, and backed him. Ponto commenced drawing a little, and the three were soon together circling the clump of poke bushes. We now walked up. As we came within three or four yards of the clump we halted, the dogs were firm as a rock, and true as steel, and under the poke bushes were three Partridges close together, on the bare ground. Two birds arose and were cut down, the third bird remaining perfectly quiet at the spot, and on going up to it, it proved to be dead, and on examining it we found a shot had hit it in the back, and gone through the skin, and ran around and passed through its breast, it evidently being the bird I hit, and out of which the feathers flew from my second shot at the seven birds when the covey first sprang, and the three birds we found on returning to the poke bushes, after the lapse of two hours, evidently were a part of the seven birds which we marked settled at this particular spot. Why they were not found on first going up to the poke bushes is easily accounted for. Not by supposing the birds were still quietly at the spot where they alighted, withholding their scent

from the dogs, but because they were not there. They had left. The hit bird and two of its companions, at the instant of striking the ground, ran off and hid, and after the lapse of two hours they returned to the spot where they alighted to get together again, and the three huddled, and the wounded bird died, and, on coming up to the spot the second time, the dogs soon found and pointed them.

I have never known pointers or setters to have the slightest difficulty in finding or pointing crippled Partridges when they had tumbled about, or ran on striking the ground. I have seen pointers and setters find and point dead Partridges fifteen minutes after the breath had left the body, that is, when they had tumbled about or ran a few feet or so before expiring. A Partridge, alighting in open cover, and running a few feet or so, and settling and remaining at the spot where it settled, will not be missed once in a thousand times, if the day is clear, and the air clean and fresh, and the dogs are good, provided you advance to the spot at once, and search the ground close, and give the dogs ample time.

## LATE IN THE SEASON.

THERE is a vast difference between shooting Partridges during the first of the shooting season, and shooting Partridges when the season is far advanced. At the first of the shooting season in October the birds are young and tame, they have not the power of wing and strength that they would have later in the season; they rise slowly, and offer a beautiful and easy mark to shoot at, and if hit are easily brought down and killed. But late in the season they become full grown and full feathered, and are stronger on the wing, and are wild from frequent flushing, and are suspicious of both man and dog, and oftentimes they will not allow either to approach them close, but will rise ten feet in the advance with startling suddenness, and fly with great velocity, and pitch for cover as swift as bullets. Then it is, and it is at this season of the year that the sportsman finds some difficulty in bringing them down. To kill them flying at this season of the year truly requires an art, and the skill of the sportsman is fully tested. It is at this season of the year that you see amateur sportsmen and bad shots banging away their powder and shot without filling their game-bags. The number of birds bagged by amateur sportsmen and bad shots, at an advanced period of the season, are very few, unless by chance they should rake a covey huddled on the ground. The very best skill of the sportsman is required when the season is far advanced, as the birds then are extremely swift and wild, and often, with skill and experience, the very best of sportsmen fails to bring home a heavy bag. Late in the season always try and get started and begin your shooting early in the morning, and at sunset in the afternoon is late enough to continue it. It makes birds very wild to shoot at later hours, besides being

a certain plan to make them change their haunts. Late in the season, when birds are wild, be always on your guard, and always ready to fire, and in shooting double shots be quick in making your first shot. Killing double shots, when birds are wild, requires quick action on the part of the shooter, and is a test of good marksmanship. Late in the season be always ready to take advantage of all and every opportunity that offers a chance to be hit. Use your gun liberally, do not be afraid to miss if you wish to fill your bag, and become a good shot. Many sportsmen wait for good opportunities, and as they are always few and far between, especially where birds are scarce, an ordinary shooter by firing oftener, and at doubtful chances, will sometimes beat the better shot who makes a too careful selection. The result of the day's shooting, when all is equal, will always be in favor of the man who shoots at all and every bird that offers a chance to be killed. Late in the season, in the month of December, when the birds have become strong and wild, every bird is on the lookout on the approach of a sportsman, or his dog. Then, according to my idea, the sport of shooting Partridges is sport indeed, and a bag of birds bagged in this month, being full grown, is worth almost two bags bagged in the first of the shooting season in the month of October. I have often killed a bag of birds along the Monocacy and Potomac bottoms, in Maryland, in the month of December, that would average eight ounces for each bird.

## HUNTING.

UNLESS you understand thoroughly the art of searching for game, you need not expect to make a heavy bag. You should know something of the ways, haunts, and habits of the game you are in pursuit of, and their haunts, and habits on different days, according to the state of the weather, and at different times in the day, and you should be able to judge from your own knowledge of their habits where to find them after they have been once disturbed. When hunting certain classes of game you should be quiet, and your tread should be as noiseless as possible, especially when approaching close to the whereabouts of the object of your search. Loud talking, whistling for your dog, hallooing for your companion, treading upon sticks and bushes, dragging the feet along the ground, instead of raising them up, all have a tendency to frighten the game, and are fatal to any attempts to approach close to them. Young sportsmen should remember that silence, when hunting for some varieties of game, is as essential for the success of the sportsman as stealthiness and cunning are for the fox in pursuing his prey. Some sportsmen get into the habit of talking aloud to their companions, others are constantly bawling after their dogs. The successful sportsman is watchful and silent, his tread is light and noiseless, and there are times when he directs his companion by the motion of the hand, or by a point of the finger, or by a shake or nod of the head; and the dog is directed in silence, by the wave of the hand, or made to stop by squatting, or by an angry shake of the head, or by an ugly look, or by the click of the hammer, or by pointing the gun, and other such quiet, noiseless signals.

## HUNTING PARTRIDGES.

WHEN hunting Partridges always try and find your birds early in the morning. The birds are not apt to fly as far as when the day is farther advanced, and you will be fresh and not fatigued, and you will be able to kill more than if tired and worried, as you would be late in the day after a long tramp. Always hunt your grounds very closely, search them well, and do not be in too much of a hurry to get over the ground. This is a great mistake with many sportsmen. They run over the ground too fast entirely. They do not hunt slow enough, and they do not give the dog sufficient time to find the birds. Partridges sometimes are huddled together, and they lay very close, and they give out in this way but little scent, and unless the dog runs close to them he will not find them, and to walk hurriedly over the ground does not give the dog sufficient time to search the ground closely. And if the birds are huddled together in long grass, or in some grassy knoll, or hollow, in close cover, giving out but little scent, the dog will not be apt to find them. But by going over the ground slowly, and by giving the dog plenty of time to search the grounds properly, the birds will most generally be come upon by the dog, and perhaps be pointed within twelve inches of his nose. A covey of birds sometimes, that lie very close in this way, is worth two or three coveys that flushes wild. Whenever you flush up a covey of Partridges, especially when birds are scarce, do not be too anxious to find another, but stick to them as long as there is a chance left to get one up. "A bird in the hand is worth two in the bush." And in the course of the day's hunt to adhere to this rule will add to your success wonderfully. The better you know the ground, in any particu-

lar locality, the more it will be to your advantage, and the better you will know how to arrange your hunt. When the season is advanced, during the middle of the day, look well to the sides of the meadows and grass lands, also the old fallow fields, on coming across them, especially if there is a stream of water running in the locality. These are the places in which you may often find birds about midday, and are thought by most sportsmen to be the most improbable places to find them, and they seldom pass through them, but generally pass by without even letting the dog range over them. Both sportsman and dog think these places the most unlikely of all others for birds to frequent; whereas, sometimes, of all others, they are the most likely. Partridges very often resort to the old fallow fields to pick, scratch, and dust themselves, and to remain quiet for an hour or two, as these fields, of all others, are the most quiet, there being seldom any hands there to disturb them, and instead of the sportsman passing around the old fallow fields, scarcely giving them a glance, let him and his dog hunt them as well as the stubble fields. On cold days birds are often found in the meadows and grass lands, and, on coming across them, you should always allow your dog to range over them. Partridges, as a general thing, lie very close in a meadow, or high grass land, and on finding them you will have a good chance of filling your bag. They seldom get up wild, but on the contrary lie very close and often times will allow you to kick them up. This makes beautiful sport, and I have often killed every bird in the covey when found in such localities, though I have often taken pity on them, and left part of the covey remain, when I knew I had them at my mercy. Partridges that are wild from frequent flushing are hard to kill, and they must be marked down very accurately, and if they have been much disturbed they make long flights and settle, and hide sometimes in unaccountable places. After having been flushed and shot at, and made very wild, they fly sometimes and alight into very bare places. It is not an uncommon occurrence for them to alight, when

very much frightened, in open roads, in ploughed fields, and in open spaces entirely destitute of vegetation. When you have them scattered be always on your guard, and always ready to fire, for where you least expect to find them oftentimes one may spring. Whenever you mark a Partridge down, search for it, and always try and find it; this will give your dog confidence in you, and by pursuing this plan you will get more birds in the end. When hunting Partridges, if possible, always give the dog the benefit of the wind, by walking the field up wind, or side wind. In wet and foggy weather search your grounds well, or the birds will not be found; because the scent becomes partially destroyed by water dropping on their trail. In hunting the ground always prefer to hunt the sides of the fields in preference to the middle, especially if the fields are large. Partridges are more apt to feed along the sides of fields than they are in the middle, especially when the fields are bounded by wood or thicket. Always flush the birds yourself, and never allow your dog to do it, unless he is properly broken, and mark the birds down, and follow immediately on after them, as soon as the gun is recharged. During the first of the season, when the weather is warm, always arrange your hunt so as to be near water, for the benefit of your dog. A dog suffers terribly on a warm day from running, especially a long haired setter, and, if in a country where there is a scarcity of water, the dog will become worried, fatigued, and heated, and will give out, and will be worth to you scarcely anything. But if water is near so that he can quench his thirst, and run into it and cool himself, he will hunt vigorously through the whole day. Never abandon a wounded bird which you have once marked down, until after the most diligent search. Hunt the dog closely about the spot, kick the high tufts of grass, and part with your foot the matted clumps, and kick the brushwood, and jump on the brush piles, if there be any, and, by a little searching and patience, you will often get many wounded and broken winged birds, which your companions, by being in too much of a hurry, would miss.

It is by such manœuvres as these that the old sportsman fills his game bag. The oftener a Partridge is flushed, the less will be your chance of bagging it, unless accurately marked down, because it becomes more and more frightened, and takes longer flights than when first flushed, and hides in more out of the way places. An exception to this rule is that of the Pheasant (*Bonesa umbellus*), which, by being flushed several times in succession, loses its courage, and becomes less capable to elude its pursuers. To mark Partridges down accurately it requires experience, and a practiced eye. Without possessing these qualities you will be invariably mistaken. A good rule for marking a Partridge down is to watch the bird very narrowly in its line of flight, and when you lose sight of it in the distance, or in the covert, keep your eye on its line of flight, and far in the advance. Very often when coming down it will show itself by a flap of its wings, or in some other way long after you have lost sight of it. But as a rule never believe a Partridge to be down, no matter how low you may have seen it flying over a particular point or knoll, or how low you may have seen it sail, and scud close to the ground, for if you have seen a flap of its wings while scudding low at a particular spot, be not sure it is down, but when you see it hit the cover it is down then, you can be sure. When the weather is fair and dry hunt until about ten or eleven o'clock in the morning the wheat stubbles and corn fields. From ten or eleven o'clock in the morning, until about three o'clock in the afternoon, hunt out the thickets, and clumps of bushes and wood, and look well to the edges of clearings, swamps, and brakes, and to the bushy sides of fence rows, ditches, and creek banks. In the afternoon, from about three o'clock until sunset, should the weather prove fair and dry, return again to the wheat stubbles and corn fields until dark; it will be here you will make your best bag. On wet and foggy days, instead of hunting where the ground lies the lowest in marshes and in swamps, and in thick cover, tiring yourself and dog, go in thin open cover, where the ground lies the highest, and

hunt out the wood patches, and the driest places you can find on high ground. In cold and windy weather, instead of hunting the bleak high ground, in thin open cover, go in thick cover, in swamps, briars, and grass patches, and in warm southern exposed hillsides, and in hollows where the rag-weed stands the highest. It will be here you will meet with the best success. In dry, hot weather, cease hunting the dry open wheat stubbles, tiring your dog and exhausting yourself, but go where the ground lies the lowest—in swamps, marshes, and along creeks and ditches which are grown up with weeds, grass and bushes, in moist and cool places. If the ground is covered with snow abandon entirely the open fields, and go into woods, thickets, swamps, clearings, second growth wood and briary wood skirts, and hunt out the briar patches and high weeds and brush piles, in the corners of the fields and worm fences, and look well to creek banks where there are patches of bare ground, and southernly grown up hill sides, and thick sedge grass cover; here you will stand the best chance of finding your game.

## FIRING INTO COVIES.

A GREAT many sportsmen when firing into a covey of Partridges on the wing fail to hit. They bang away in a hurry into the whirring crowd expecting to kill about a dozen, more or less, and become astonished when they see the whole covey fly away untouched, notwithstanding both barrels have been fired into it. The reason they fail to hit is easily accounted for, they fire too much in a hurry, and too soon, and without any aim, and of course they fail to hit. The shot does not have time and distance enough to scatter properly, and they cover so small a space in their flight, and without being particularly directed, the chances are three to one they will pass through the whirring crowd without hitting any. As a rule never fire into a covey of Partridges on the wing unless you have aim on one particular bird of the covey; on it draw the trigger. Without selecting one particular bird in the covey to fire at the chances are three to one against killing any out of a covey of twelve or fifteen birds, unless they should happen to rise up in a mass, which is but seldom. When you flush up a covey of Partridges, keep yourself cool and calm, pitch the gun quickly to your shoulder, and single out one particular bird of the covey, on it draw the trigger, then on another, and be sure not to draw the trigger upon either of them unless your aim is perfect, then fire. When a covey of Partridges rises in front of you be quick in making your first shot, kill the first bird that rises, or one of the first, you will then have time to choose the second shot. When you have selected the first bird as the object of your aim you should keep your eye upon it though twenty others should rise up in front, and cross you. Do not let your attention be drawn from the bird you have selected until

you draw the trigger, and at the instant you draw the trigger of the first barrel, and the bird falls to the first fire, fix your eye on another bird, one that is last up, and, with the same deliberation and calmness on it, draw. This is the only way to kill two birds out of a covey, on the wing, with certainty.

## SCATTERING A COVEY.

TO know how to scatter a covey of Partridges, to make a good bag, where game is scarce, is known by few sportsmen. One of the secrets of success is to flush the birds up and mark them all down carefully, and then flush them up singly. The way a covey may be flushed to make a good bag is this: When the dog points do not walk around in front of him, if you do the birds lying between you and your dog, when they rise, will fly, some in one direction and some in another, and almost every bird in the covey will take a different route, especially if the birds are wild, and it would be impossible for you to mark them all down on account of their being too widely separated; but on the contrary advance directly behind the dog, and flush the birds. In this way, when a covey is flushed, the birds will most always rise and fly off all in one direction. Then you can mark them all down, and you can follow on after them as soon as the gun is recharged. Now, having succeeded in flushing the covey up, and driving the birds all in one direction, and in marking them all down, keep your dog behind you, and advance with a slow and cautious step to the spot where you saw them settle. Now be careful, and keep cool, command your nerves, and take good aim. Walk up one bird, fire at it; if you miss it watch it and mark it down; if you kill it let it lie at present, don't speak a word, or move a step, keep your dog still, and charge your gun with all possible haste, as another shot will almost immediately follow; as one or two of the covey will rise, down with them, and load as quickly as before; advance slowly and cautiously, step by step, and bag your game. Be on the alert for a shot, right, straight, or left, and so, one by one, get the whole covey up at intervals, and those that get

away mark them carefully down, they will fly but a short distance, and you will have them presently. After having flushed up all the birds in the covey let your dog out, and hunt up those that have escaped. Advance to the spot where you have seen them alight, hunt the dog close around the spot; he will soon find them, then flush them up singly, take good aim, and shoot them down. If you should happen to miss one or two, mark them down carefully, and follow on after them as before. In this manner I have killed every bird in the covey. If a covey is scattered, late in the season, the birds generally lie some hours in their hiding places, but they will not lie long the first of the season, and in wet weather they lie only for a short time, and will commence running after they have set but a few minutes. When scattered in the middle of the day they lie longer than any other time, especially if they have chosen long grass for their hiding place. If a covey is scattered early in the morning the birds will be apt to reassemble in a short time; but if scattered late in the evening they will assuredly reassemble in a short time, unless the birds have been separated very widely, and driven a long distance off; they will then not reassemble until the next day. A great deal, however, depends upon the weather and the cover, and whether the birds are wild or tame. It is always prudent to follow a covey directly it is flushed up. Some covies run the moment they strike cover, and thus may be lost altogether. They run very swiftly when frightened, and after the lapse of a half hour they may be a half mile from where they alighted.

## WOUNDED GAME.

IT is important for the success of the sportsman to have perfect knowledge of the nature and habits of wounded game. All game, when wounded, makes the utmost use of their cunning and strategy in order to evade being captured, and unless the sportsman understands perfectly the nature and habits of wounded game, and their devices to evade being captured, many will be lost.

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## HOW TO BAG WOUNDED PARTRIDGES.

ALL wounded Partridges should be watched and marked down very accurately at the precise spot where they fall. Dead Partridges require equally as careful marking, because they give out but little scent, and the dog oftentimes will not find them. There are three chances out of four that a Partridge with a wing broken, falling into high standing corn, or into a matted swamp, high rank weeds, or long tangled grass, will not be bagged without the assistance of a good dog to trail and scent it up, and find it. I have often seen a broken-winged Partridge run directly it hit the ground, and in a few moments it would be a hundred yards from where it fell. When Partridges are knocked down, and fall in long grass or thick cover, the eye should be kept on the spot where they fall. Mark the spot by a long or short tuft of grass, or a particular weed or bush, and, if there is no particular object to notice, advance to the spot where you saw the bird fall, and mark the spot by laying your gun, hat, or hand

kerchief on the ground, call your dog in, make him hunt close around the spot, "cry dead bird," walk first here, then there, and diligently search around and about the spot for it until it is bagged. By pursuing this plan you will bag many wounded and dead birds that your comrade and dogs, by being in too much of a hurry to give them up, would miss. All wounded Partridges should be followed up immediately or they will not be found. After they die they give out but little scent, and the dog is not apt to find them. If a Partridge jerks at the moment of being fired at you can be sure of the bird being hit, and you should watch it in its flight, and mark it down very accurately, and it should be searched for until found. If a Partridge flies off with its legs hanging down, and pitches to and fro immediately after being fired at, you can be sure the bird is hit in the back and mortally wounded. It should be watched very narrowly in its line of flight, and the spot where it falls should be marked to a foot, and it should be followed up without delay, as you will generally find it dead, and the dog is not apt to find it, because it cannot move to disperse the scent, and if the dog should happen to find it it will be only by chance. All Partridges from which the feathers fly, or which exhibit any symptoms of being hit immediately after being fired at should be narrowly marked down. Four Partridges out of five that fly away mortally wounded, especially if their legs are hanging down, fall within one hundred and fifty yards of the spot where fired at, and the sportsman who wishes to recover his wounded birds should be particular in marking them accurately down. A pointer or setter, one that understands his business, that will search for, and hunt and trail up, and is good at finding broken wing and dead birds, is indeed, in my opinion, an indispensable and valuable dog to a sportsman, for unless you have the assistance of a dog, and one that understands his business, to find dead birds, and trail up wounded ones, many dead birds will be lost, and many broken-wing birds will get away and will not be bagged.

## TOWERING OF A PARTRIDGE.

TOWERING is the last movement in the death struggle of a wounded Partridge when hit in the head. The towering of a Partridge is curious, beautiful, and interesting to behold, and is indeed a very singular phenomenon. It frequently occurs in this way: The Partridge after being hit flies off in a straight line some distance, and then, by a peculiar flutter of the wings, rises up into the air in a straight line with its head pointed upwards, when, being dead, it falls with closed wings to the ground. Towering is the last effort of a Partridge mortally wounded in this manner, gasping for life, after which it falls, with closed wings, to the ground dead as a rock. I have hit Partridges with one pellet of shot in the eyes, and blinded them. I have seen them rise into the air and hover, and twist, and soar to a great height and then fall to the ground, very often head foremost, always with wings extended. In the same manner I have seen Partridges rise into the air, and hover and twist, to great height, when hit by a shot in the beak, which carried it off close to the head. I have often seen Partridges hit in this way fall to the ground, get up and fly away again. This is not towering strictly speaking. When a Partridge towers it falls to the ground with wings closed, perfectly dead, and you will generally find it lying on its back. When a Partridge is hit in the eyes or beak, and comes down with wings extended, it has not fallen dead. This is mock towering of a wounded Partridge, and a sportsman who has once witnessed the fall of a towering Partridge will know the difference. I have often hit Partridges with one pellet of shot in the eyes, sometimes partially, often entirely blinding them; they would fly around and around in a circle, apparently in great

agony; would often come directly towards me, bleeding from the eyes, and be captured, a single shot having hit them in one or both eyes, going through and blinding them. Towering Partridges should be marked down very accurately, if not they will not be found, as the distance between is very deceptive; they give out but little scent, and unless the dog gets his nose right on them he will not find them. But I have often noticed on finding these birds that they were not as far off as they seemed to be when first marked down. When a wounded Partridge mock towers, and comes down with wings extended, you should approach with due caution to bag it; the bird not being dead will often rise and fly away when you are in the act of picking it up, and even when in your hand.

## THE SPORTSMAN WHO NEVER FAILS TO HIT.

I HAVE heard of sportsmen shooting who never failed to hit, but I must confess I have never seen such a sportsman. I have shot with sportsmen who had the reputation of killing twenty-five Partridges out of twenty-five shots, it made no difference where the birds were found, and with others who had killed every bird that would rise. I have shot with some who had the reputation of killing every time they would fire, and again with those who have said they could kill nine Partridges out of ten all day long, one day after another, the season through, in cover or out of cover. I have heard such romancing a thousand times, and I have always found, when the experiment was tested by actual experience in the field, that the sportsman who had the reputation of never failing to hit a bird was always a slow, miserable, poking shot. Where he would kill one bird, a good, quick, expert sportsman would kill and bag a half dozen in the same time. It is impossible to kill every Partridge you fire at. Some times the shot spreads widely and the bird escapes being hit, it matters not how perfect your aim may be. At other times you may have perfect aim, and by a slip, or a stumble, or by the sun getting in your eyes, or a bush or a tree intervening, or the bird darting or turning off just at the moment of drawing the trigger, you may miss. Whenever you hear of a sportsman who can kill twenty-five Partridges out of twenty-five shots, and can kill such a number without missing, and he can prove it by some of his sporting friends, you can rest assured that, if he is telling the truth, the way it is done is by picking out in the open fields all the slow flying, easy, and certain shots, and refusing to fire upon all birds that he is uncertain of kill-

ing. It is the difficult and uncertain shots that try the skill of the sportsman, and it is these shots particularly that a good sportsman loves to make successfully. One difficult, cramped, and uncertain shot, at long range, that brings down the game, gives more real enjoyment and pleasure to a good shot than forty slow-flying certain ones, because it tasks his skill to the utmost to bring the bird down. It is the number of doubtful, difficult, cramped, and uncertain shots by which a sportsman kills game in a day's hunt that makes him superior in skill to the man who refuses to fire except when an easy, certain chance offers at short range. The sportsman who takes every chance when in the field, or in the thicket, or wood, and fires whenever a bird offers a chance to be hit, if he kills three birds out of five, day in and day out, is doing excellent shooting, and where one sportsman comes up to this standard of shooting you will find five hundred that will not. A good shot can go out in the open fields the first of the shooting season, when the birds are young and tame and fly very slowly, and by picking out his birds to shoot at, he can kill, if birds are plenty, a large number in a day's hunt, and by only shooting easy and certain shots at short range, and refusing all long range and difficult ones, he can kill in this way a good number of birds before he misses. But late in the season, in December, when the birds are strong and wild, and fly like bullets, it takes a good, quick shot to bring them down. I have yet to see the sportsman who can, at this advanced period of the season, kill every bird he fires at, whether he picks his shots or not. It is not the sportsman who kills the greatest number of birds without missing, in a day's hunt, that is the best marksman, but the sportsman that kills the greatest number of birds, or bags the most game, in the day's shooting. I have seen sportsmen, when in the field, who had the reputation of being expert marksmen, and men that never failed to hit, and in order to sustain this character would manufacture all kind of excuses for not shooting at birds that offered the fairest mark. Being afraid of missing they would go poking about, aiming at every

bird that would rise, and dwell on the bird in its line of flight, and then, perhaps, would not fire, "it being a beautiful mark too." And the whole day would be spent in this manner, in poking and sighting at birds in order to fire six or seven certain shots where there was no possible chance of missing, and keeping a correct account how many times they would fire, so that they could tell their friends that they had been out shooting and had killed every bird they had fired at. All such shooting is too tame to talk about. In order to sustain a reputation as the sportsman who never fails to hit, you must fire upon all Partridges that offer a chance to be killed, in bush or out of bush, the difficult, cramped, and uncertain shots, as well as the easy, certain ones, at long as well as short range.

## THE EXCITABLE SPORTSMAN.

SOME sportsmen, when shooting, are subject to ungovernable excitement, and all they can do to restrain this feeling, at the time, seems to serve only to increase it, and they find it impossible to become cool and calm. Therefore, it is a great drawback, and prevents them from becoming accurate marksmen—(sportsmen who are so unfortunate as to be inflicted in this way.) It will depend altogether upon the state of his mind or nerves as to whether the sportsman will shoot well or ill. If he shoots well it will be at the time when he has the least anxiety about killing his game, or when he is most successful in his shooting. One or two clean misses, or unsuccessful shots, or balks in the morning, will generally upset the whole day's shooting with him. He will become over-anxious to kill, and over-anxiousness will bring on nervousness, and overwhelmed with excitement his nerves will become unstrung, and under these circumstances he will be likely to continue to shoot badly the balance of the day. But should the excitable sportsman be successful in the morning, and kill, clean, two or three birds, or bring down a doubtful shot, this will give him confidence, and he will continue to shoot good the whole day, or at any rate so long as everything goes evenly and smoothly with him. But if the least trifling circumstance should change the case, or make it otherwise, it will cause him to shoot badly, or at all events very uncertainly. An excitable sportsman is very precarious in his shooting. When a covey springs suddenly the noise or whirr of the birds' wings throws him off his guard. He excitedly pitches the gun up, and in a flash blazes away, in a hurry, without taking any aim. When walking up to a dog that is pointing a covey, where the birds are all scat-

tered around, he gets into a nervous trepidation, and when the covey springs he fires away with an uncertain aim, and shoots altogether differently from a man who is perfectly collected and cool. To remedy this excitement when shooting at a covey, or walking up to a dog when he is pointing, the excitable sportsman must learn to regulate himself. He must practice coolness, and must learn calmness. He should make it his duty to master his feelings and become less anxious, and not care so much about killing his game. If he makes these things his study he will accomplish much towards making himself a cool, accurate marksman. I have seen sportsmen who, when the dog would point a covey, became so excited and nervous that the whole frame would shake as if with an ague, and I have seen others who, when a Partridge would rise suddenly from under their feet, would be so frightened by the noise that they would fire before the gun would be to the shoulder. I have seen others again, when a hare would bounce up unexpectedly from out of the grass, stand and gaze at the hare as it was bounding off until its form melted in the distance, or disappeared in the cover, and forget they had a killing piece of machinery in their hands. I have seen others who, when a bird would be advancing toward them, would fire before the bird would get within killing distance of the gun. I have also seen others who, when they were taking aim, became so excited that their limbs would shake so violently it would be impossible for them to hold the gun steady. Some I have seen completely paralyzed for a moment when the game would spring, and they would stand and look at the game going off without firing at it. Again, I have witnessed others sneaking cautiously up to the game, so as to get a close shot, whose hearts would beat so rapidly that, after they had fired, on asking them a question, it would be impossible for them, for want of breath, to answer it; and others I have seen chase game, which they had wounded with one barrel, until they were nearly exhausted, and then let the game escape, and forget the other barrel of the gun was charged. I have seen sportsmen so nervous and

excited, after they had fired, that their hands would shake so violently that it would be the greatest difficulty for them, at the moment, to charge the gun again—all because of their excitement. An excitable sportsman shoots best when he is alone ; in the presence of others he generally shoots badly, being too anxious, and afraid of missing or of losing his reputation by being beaten. An excitable sportsman will generally shoot differently every day, according to the equilibrium of his nerves. He may go out one day and shoot exceedingly well, the next day he may go out and shoot miserably; the least excitement or annoyance will upset his nerves at any time, and consequently his shooting will vary accordingly. My advice to all excitable sportsmen is to practice self control, and learn to be calm; be less eager, master yourselves so as to be able to regulate your every motion when in the field, and when in the act of shooting. When this is accomplished you have gained that which all good marksmen possess—a steady hand, and firm, and quiet nerve.

## THE RECKLESS SPORTSMAN.

A GUN is a very dangerous weapon, even in the hands of the most careful sportsman. Thousands of accidents have occurred by guns in the hands of the most careful and experienced sportsmen, and how often, after they have used every care and precaution for years, do we hear of sad and melancholy accidents occurring which destroy the peace and joy of a whole family, by the loss of a father or a brother. How often do we hear of a father losing his arm, a brother his eye, or a particular friend his hand or finger, or being injured for life by the accidental discharge of a gun through recklessness, or in the hands of some reckless person. Such accidents frequently occur with guns in the hands of the most careful and experienced sportsmen, and they will certainly occur sooner or later with reckless sportsmen. So in handling such a dangerous death-dealing weapon as a gun you cannot be too careful. When out shooting never have the muzzle of the gun pointing towards the person you are with; be on your guard and be watchful of this under any and all circumstances, and never have the gun pointing in such a direction that you could possibly shoot yourself under any circumstance, but always remember to keep the muzzle of the gun pointing in a direction that, if the gun should accidentally go off, the charge would be harmless. If you are shooting a muzzle loader, after discharging one barrel of the gun, never forget to throw the muzzle of the gun downwards, and give it a slight tap or so before charging it again. This will empty the gun of any little remnant that may remain in the barrel, which sometimes contains a spark of fire, and if the gun is charged, especially in a hurry, without getting it out, the spark will ignite the

powder, and you may lose a finger, or one or both eyes by the explosion. On entering a house with a loaded gun, if it is a breech loader, withdraw the charges. If it is a muzzle loader always remove the caps off of the nipples of the gun, especially if you set the gun away; if the caps are not removed from off of the nipples a blow on them will discharge the loads, and if it is drawn towards a person, as it often will be by thoughtless people in lifting it, or removing it from place to place, it will be likely to go off, and perhaps cause a serious accident. The same precaution should be used when getting into a vehicle, and in carrying the gun on long tramps, where it is frequently removed from vehicle to shoulder and from shoulder to case. The proper way is to withdraw the charges, or leave the nipples without caps, and place on the nipples, in place of caps, cotton or tow; you can then let the hammers down and the gun will be safe. Never put caps on the nipples of a muzzle loader until you have finished charging the gun. Never toss the gun up whilst drawing the charge when the gun is capped. Never charge one barrel of the gun when the other is cocked and capped. When in the field, and in expectation of a shot, always carry the gun with the hammers raised, so you will be ready at the instant for any chance that may offer. But on coming up to a fence let the hammers down, and in getting over the fence push the muzzle of the gun in front of you. Don't pull the gun through the fence, or stick the gun between the rails of the fence, and then get over. It is better to push the muzzle of the gun in front of you, and climb over the top. In this way you will run no risk of having an accident by the hammers catching in drawing the gun through. Many sportsmen have been shot by pulling the gun recklessly through the fence instead of climbing over the top, and pushing the gun in front of them when getting over. When running around making a circuit to get a near shot, or running after or chasing wounded game, always remember to keep the muzzle of the gun pointing upwards, for if you should happen to stumble and fall when running, and

the point of the gun is downward the muzzle will be driven into the ground, especially if the ground is moist and soft, and if the gun goes off, or is discharged in this situation the barrels will be almost sure to explode, and you may lose your life by the explosion. But if the muzzle of the gun is pointed upward, there will be no risk of an explosion. When standing on a fence, or walking a log, or jumping a ditch, or getting in or out of a wagon or boat, or walking along in a road going or returning from a hunt, when stopping at a spring to drink or resting for awhile, always have the hammer of the gun down. Whenever you stop at a spring to drink, or to eat your lunch, or in any manner rest for awhile, instead of standing the gun up against a bush, twig or tree, as all reckless sportsmen do, lay the gun down on the ground, and you will have less chance of an accident. Should the gun be standing up it might fall and strike the hammers and go off, and perhaps shoot you, your friend or dog. When shooting in swamps, woods or thicket with a companion never fire upon a bird or animal, it makes no difference how fair the shot may be, unless you are certain of the whereabouts of the position of your companion. You had better let the bird or animal escape without firing, than to fire recklessly and perhaps hit your companion. In walking in thick undergrowth with a friend, where it is difficult to force the way, and you are compelled to walk on behind the other, let the foremost man hold the muzzle of his gun in front, and the rear man hold the muzzle of his gun pointing backward, so that if a twig or bush should happen to catch and raise the hammer, and discharge either of the guns, there will be no damage done. The same precaution should be used in sneaking or crawling up to get a close shot. If one man is behind the other the foremost should carry his gun with the muzzle pointing in front of him, and the rear man should carry his gun with the muzzle pointing backwards. When in the field, where the birds are all scattered around, and in expectation of a shot, the gun should be carried with the hammers raised. If the ham-

mers are down, in the excitement of raising the hammers, when a bird rises unexpectedly, the thumb will oftentimes slip, especially if the hammers are damp, or the thumb moist or wet, or the thumb benumbed by cold, while the gun is ready for immediate use, and only has to be pointed to be discharged. When shooting with a muzzle-loader, and you make a mistake, and put two charges down in one barrel of the gun, or get the ramrod fastened in the barrel, do not fire the gun off, as some reckless sportsmen do, and run the risk of losing a limb or your life by the gun bursting, which is often the case when discharged in such a condition, but remove the charges, or the ramrod, and do not run any risk by recklessly discharging the gun. When firing off the gun never hold the butt against your stomach or bowels, the kick or recoil of the gun sometimes is very severe, and death has been caused repeatedly by such carelessness. Never lie down flat on your back, or lean your back against a rock or tree when firing your gun off, for the recoil of the gun may be the means of breaking your collar bone. Such accidents frequently befall ignorant and reckless sportsmen. In carrying a gun, when in expectation of a shot where the birds are all scattered around, carry it with the muzzle pointing downward, but when just walking the field, and not expecting a shot, carry your gun on your shoulder, with the muzzle pointing upwards. When you stop for a moment never rest with your hands over the muzzle of the gun, this is a dangerous, reckless fashion. Some sportsmen have this habit, and it has been the cause of many accidents. For instance, when the dog comes in he may run and jump up against you, and should his foot happen to slip and strike and raise the hammer the gun will be discharged, and the probability is you may lose your hand, or perhaps both by the explosion. In conclusion I shall say, not only to reckless sportsmen, but to all gunners, and to all shooters, and to all those who handle guns, be careful when handling a gun, and never forget for one moment, not even if you have been told that the gun

is not charged, that you are handling a death-dealing weapon, which requires the greatest care and watchfulness, not only to prevent it from destroying your own life, but also the life of some fellow being.

## THE BAD SHOT, OR UNSKILLED SPORTSMAN.

THE bad shot or unskilled sportsman is generally a man who possesses but little idea of discrimination, and one who lacks keen observation and judgment. He is an excitable and self-willed sort of fellow, and when a Partridge rises he becomes so overwhelmed with anxiety, being afraid he will not kill the bird, that, very often, he fires without taking aim, and of course the bird goes on without being hit. When a covey of Partridges rises he bangs away in a hurry without selecting out one bird of the covey to fire upon. The consequence is he fails to kill, but thinks he ought to have killed at least half a dozen. He magnifies a small covey of ten or twelve birds to be the largest number he ever saw in one covey, and thinks forty birds must have arisen, and that he ought have killed five or six of them at the lowest. The whole covey flies off without being watched, or marked down, and after the excitement wears away, and the gun is recharged, he starts off in a great hurry, and goes hunting around and about to find where the birds have gone, and perhaps will spend a half day searching before he finds them, whereas by a little observation at the time of flushing the covey he could have marked the birds all down to a certainty. The bad shot or unskilled sportsman is no judge of distances when in the field. Sometimes he fires way out of range of the gun where there is no possible chance of killing. At other times he fires so very close that if the bird is hit it is torn to pieces, and, perhaps, will not be in a condition to carry home. On the other hand, should the bird be hit at a long distance, it will possibly just have its wing tipped. If this is the case, a regular foot race will immediately ensue with the dog and the man, and if you accompany him, unless

you take good care and protect yourself by dodging behind a tree, or a rock, you will stand a good chance of being shot by the accidental discharge of the gun in the hands of the unskilled sportsman while racing, especially if through brushwood, hanging branches, or bushes. The bad shot's, or unskilled sportsman's dog will become suspicious of him. He will perform all kinds of little tricks. For instance, when he points a covey he is anxious to get his mouth on the birds, and is conscious of his master missing, and of seeing the birds fly off, as he has often done before, without having a chance to mouth one; he will take the chances for himself and pitch in before his master gets up to him, and when the birds are on the wing he will take after and chase, and try to catch them. If his master tries to check him from racing he will pay no attention to his call, but will become hard of hearing, head strong, and ungovernable. Should the bad shot, or unskilled sportsman, by chance happen to kill a bird, the dog will be likely to bite it or chew it up before he gets up to him, because he so seldom gets one to mouth, and when he does he makes much of it, by biting or chewing it up. The bad shot, or unskilled sportsman, when shooting with other marksmen, has many false excuses for not killing. For instance, when a Partridge rises and flies off he fires in a hurry, without taking aim, of course he misses clip and clear. He will then say, "I would have killed that bird, but just as I pulled the trigger my foot slipped, and it threw me clear out of kelter. The next shot I hope I will be more fortunate." Again, a bird rises and flies off, he bangs away; the bird is missed clear as a whistle. He then says, "did you hear my gun hang fire; what a pity, such a beautiful shot, too. I would have riddled that bird if my gun had not hung fire. It hung fire so long I did not think it was going off, and just as I was in the act of taking it from my shoulder, to my utter astonishment, it went off." The next bird rises and flies across the bad shot, and he being no judge of distances, and having no knowledge of shooting cross shots, or birds flying around, or across to the right, or left, he fires, and

again he misses—the bird flies on most beautifully. He exclaims, "did you see the feathers fly out of that bird. Why, I almost picked it. If my shot had been larger I would have bored a hole right through it, but my shot is too small entirely." The next bird rises and flies off; he bangs away with the same result. The feathers carry off the meat, and he contends the bird hangs a leg, and will die; that his aim was perfect, but the powder was good for nothing; that if he had good strong powder his shooting would be more effectual, it not being strong enough to kill the birds when hit. He goes the whole day long shooting at Partridges and missing them, and every time he misses he manufactures some excuse to suit the occasion. A bad shot, or unskilled sportsman, shoots in too much of a hurry as a general thing. He makes no allowance in shooting in a strong wind for the shot to be drifted off from a right line. He makes no allowance for the falling of shot in shooting at long range. In shooting cross shots he arrests the motion of the gun, at the time of drawing the trigger, instead of continuing it in the line of flight of the bird. A bad shot may start out and find a large number of Partridges, in a day's hunt, but will kill few. He will return in the evening with an empty bag, stating to his friends that he found plenty of birds but they were very wild, or he saw plenty of game, but, after discharging his gun several times, he unfortunately lost his shot out of his pouch and was compelled to return home, but if he had not lost the shot, he would have filled the bag. Other times he may tell them when he has returned from a hunt, that he found dead loads of birds, but he only fired two or three shots and those were very difficult ones; that he succeeded in killing two out of three, and would have killed the third, but just as the bird raised, a farmer cried out, "get off of my land," which threw him off his guard and he missed. The balance of the day afterwards he met with the same luck—just as fast as he found a covey he was driven off the land by farmers, and this prevented him from filling his game-bag. Bad shots or unskilled sports-

men only kill Partridges flying straight off, and that too at short range; because they have no power of judging distances, and no knowledge of shooting cross-shots, which requires a combination of movements to be successful. A young sportsman should beware of going shooting with a man who has the reputation of being a bad marksman. It is better to go out with a skilled marksman, for if he contracts the habits of the bad marksman, it will be difficult to get rid of them. A bad shot, or unskilled sportsman will spoil the best broken dog in the world, and should a sportsman want to purchase a well-broken dog, my advice is, never buy one from a man that is a bad shot. Never loan a well-broken dog, pointer or setter, to a man who shoots badly, for if you do you can rest assured that the dog will be spoiled. He will contract bad habits; he will learn to run in, or chase, or become careless, or run after the birds without pointing them; he will become ungovernable, and it will be almost impossible for you to control him afterwards, unless you thrash him and keep strict watch over him. The bad shot, or unskilled sportsman, is a great protection to Partridges. He goes out and finds and flushes the covies, and fires away both barrels without killing any, and the covies become scattered in every direction. Should the good shot come along, he finds it impossible to get up a covey, because they have been flushed and scattered by the bad shot. The good shot may get up one or two scattered birds and kill them, whereas if the bad shot had not gone that way and flushed and scattered the covies, the chances are two to one that the good shot would have filled his bag out of the same covies, going over the same ground. Bad shots frighten the Partridges and make them very wild and shy. I have seen Partridges fly clear out of sight over the tops of the highest trees, and hide themselves in holes in the ground, and under cord-wood and old drift, in musk-rat holes, stone fences, and under roots of trees, stumps, hollow logs, stone-piles, wheat-stacks, corn-shocks, piles of rails, sink-holes, and in every

conceivable place they could hide, where a dog oftentimes could not scratch them out, so frightened do they become by being driven up so often, and shot at by bad shots, or unskilled sportsmen.

## MISCELLANEOUS HINTS—DRESS FOR PARTRIDGE SHOOTING.

THE olor of the Partridge shooter's clothing, pants, coat, and vest, should as nearly as possible correspond with his natural surroundings, or at all events it should be of some dull drab color, that which would not be likely to attract much attention. In autumn, when the foliage and vegetation is turning yellow, a light brown or yellowish-drab will be found to be as near the tint as any. For material every sportsman has his own fancy. As far as I am concerned I prefer strong fustian or corduroy. The coat should be a short sack, and should fit easily and comfortably, with plenty of pockets. The game pockets should fill the whole of the inside of the skirt. Being thus prepared you can carry a large bag with much less trouble than with the ordinary game bag. A drab low-crowned, flexible, ordinary brimmed slouch hat, is as good for open or bush Partridge shooting as any head covering.

Boots.—Boots for Partridge shooting should never be made too heavy. It is altogether a mistaken idea to have them made of the stoutest leather. A pair of strong, light, easy and comfortable fitting boots is what you want. Observe Mr. Lewis's advice on the subject of shooting boots: "Nothing adds more to the comfort and good humor of a sportsman than a perfectly fitting and well modeled boot, and nothing is more easily obtained if recourse is had to a smart workman. If walking boots are not made full, large, and easy, no comfort can be expected from them, as they will be sure either to cramp the feet, pinch the toes, gall the heel, skin the instep, or arrest the free circulation of the blood and fatigue the wearer almost to death. It is of

no use, certainly, to enumerate any more of the miseries attending a pair of bad-fitting shooting boots, as many of our readers, no doubt, some time in the course of their lives, have had a practical demonstration of the matter, and perhaps can speak more feelingly on the subject than we can, as we have always been very particular in the choice of these articles, and consequently have seldom been caught in the unfortunate situation above alluded to. There are, however, some other objections attending the ownership of a pair of tight boots, particularly when damp; that is, they are very inconvenient to get on, and, we might say, still worse to pull off. And, moreover, nothing injures the stiffening of the heels so much, and makes them perfectly good-for-nothing, as tugging at them with a boot-jack, or working into them with the toe of the other foot, or over the cross-bar of a chair; the stiff sole-leather with which the heel is braced becomes perfectly soft, and consequently will be sure to run over on the next trial. What is more ludicrous than to see a bad tempered man, half bent, dancing and prancing over a small room, with one foot in a slipper and the other stuck fast half way down a tight boot, striving in vain with all the energies in his body to force it on? Such scenes are not uncommon among sportsmen, and often give rise to much merriment on the part of the "knowing ones." That a tight boot is very uncomfortable, no one will deny; and a boot made too large for the foot has likewise its inconveniences, as it will be sure to ride up and down on the heel, and sooner or later will rub the foot into blisters of the most painful character. There is a happy medium between the two evils of loose and tight boots, which every intelligent mechanic knows how to arrive at without any directions from the sportsman; in a word, "the boot should be made to fit the foot, and not the foot to fit the boot," as is too often the case.

KNIFE; DRINKING CUP.—On starting out to take a hunt, before starting always see that you have in your pockets, a knife, a drinking cup, and something to eat; also, some twine string; and, if you indulge in tobacco, see that you

have that, unless you prefer to feel all through the day unlike yourself; do not chew too much, nor over-walk yourself at the sport, particularly if you are not very strong—both over-walking and chewing weaken the nerves and injures the constitution.

If you want to feel good through the day, never start out in the morning to hunt with an empty stomach—eat something before you start, if it be only no more than a slice of bread.

ACCOUTREMENTS.—Of gun covers, wad cutters, game bags, dog calls, pocket cleaning rods, shot belts, shot pouches, powder flasks, nipple wrenches, shells, shell extractors, &c., I shall have nothing to say, more than to refer you to J. H. Johnson, at the Great Western Gun Works No. 285 Liberty street, Pittsburgh, Pa., for an illustrated catalogue of 100 pages of sporting goods, out of which you can make a selection to suit your fancy.

CAPS.—Eley's water-proof caps, warranted not to fly to pieces, nor miss fire, for Partridge shooting, are what you want.

WADDING.—Eley's patent chemically prepared hair-felt gun-wads, warranted not to take fire, or fly to pieces in the barrel, are as good wadding for shooting as any.

POWDER.—I prefer the medium size grained powder for Partridge shooting. Lafflin & Rand's Orange Lightning, Oriental, Dupont's, Curtis & Harvey, Hazard's, American Powder Company, any of these brands are good enough, and all I have got to say is, that whenever you fail to kill your birds shooting, with any of these brands, when the powder is pure and dry, why, you can set it down that there is something wrong behind the gun.

SHOT.—The adjoining table, showing the number of pellets to the ounce of the various and comparative sizes of shot which are made by the leading manufacturers, which may prove of service to sportsmen, is taken from W. F. Parker:

## COMPARATIVE SIZES OF DROP SHOT.

| Merchants' Shot Tower Co. Baltimore, Md. | | Tatham & Bros. New York. | | New York Lead Co New York. | | Thos. Otis Le Roy & Co. New York. | | Thomas Sparks, Philadelphia, Pa. | | St. Louis Shot Tower Co. St. Louis, Mo. | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Size. | No of Pellets to oz. | Size. | No. of Pellets to oz. | Size. | No. of Pellets to oz. | Size. | No. of Pellets to oz. | Size. | No. of Pellets to oz. | Size. | No. of Pellets to oz. |
| TTTT | 22 | FF | 24 | | | | | | | | |
| TTT | 26 | F | 27 | | | | | | | OOO | 33 |
| TT | 30 | TT | 31 | TT | 32 | TT | 32 | | | OO | 39 |
| T | 34 | T | 36 | T | 38 | T | 38 | T | 41 | O | 46 |
| BBB | 39 | BBB | 42 | BBB | 44 | BBB | 44 | BBB | 50 | BBB | 51 |
| BB | 45 | BB | 50 | BB | 49 | BB | 49 | BB | 59 | BB | 60 |
| B | 52 | B | 59 | B | 58 | B | 58 | B | 70 | B | 71 |
| 1 | 60 | 1 | 71 | 1 | 69 | 1 | 69 | 1 | 85 | 1 | 90 |
| 2 | 77 | 2 | 86 | 2 | 82 | 2 | 82 | 2 | 102 | 2 | 100 |
| 3 | 94 | 3 | 106 | 3 | 98 | 3 | 98 | 3 | 118 | 3 | 118 |
| 4 | 115 | 4 | 132 | 4 | 121 | 4 | 121 | | 143 | 4 | 159 |
| 5 | 140 | 5 | 168 | 5 | 149 | 5 | 149 | 5 | 187 | 5 | 237 |
| 6 | 180 | 6 | 218 | 6 | 209 | 6 | 209 | 6 | 267 | 6 | 299 |
| 7 | 225 | 7 | 291 | 7 | 278 | 7 | 278 | 7 | 17 | 7 | 385 |
| 8 | 365 | 8 | 399 | 8 | 375 | 8 | 375 | 8 | 515 | 8 | 509 |
| 9 | 610 | 9 | 568 | 9 | 560 | 9 | 560 | 9 | 715 | 9 | 700 |
| 10 | 1130 | 10 | 848 | 10 | 822 | 10 | 822 | 10 | 1098 | 10 | 1103 |
| 11 | 2200 | 11 | 1346 | 11 | 982 | 11 | 982 | 11 | 1826 | | |
| 12 | 3200 | 12 | 2326 | 12 | 1778 | 12 | 1778 | 12 | 2428 | | |
| 13 | 12200 | | | | | | | | | | |

# AMERICAN
# RUFFED GROUSE
## PHEASANT SHOOTING.

### THE GROUSE.

THE Grouse belong to the family "Tetraonidæ," and are characterized among gallinaceous birds by their densely feathered tarsi; and by the feathers of the nasal fossa or groove, which fill it completely, and conceal the nostrils. The toes are usually naked, (feathered to the claws in the Ptarmigans,) and with pectinations of scales along the edges. The tail feathers vary from sixteen to eighteen, and even twenty in number; the tail is rounded, acute, or forked. The orbital region is generally somewhat bare, with a naked stripe above the upper eyelid, beset by short, fringe-like processes, while many genera have an inflatable air-sac on the side of the neck. In this family, according to Baird, Brewer and Ridgway, the following varieties can be found in North America. The common name of each variety, and the places they respectively inhabit, are as follows:

No. 1. *Spruce Partridge, Canada Grouse.* — This variety inhabits spruce forests and swamps of the Northern United States to the Arctic seas. West, nearly to Rocky Mountains.

No. 2. *Franklin Grouse.* — Inhabits Northern Rocky Mountains, near the United States boundary, and West to coast range.

No. 3. *Dusky Grouse.*—Inhabits Rocky Mountain region of the United States, principally South of South Pass and Sierra Nevada, North to Oregon, and South to San Francisco Mountains, New Mexico.

No. 4. *Oregon Dusky Grouse.*—Inhabits North-West coast region from Oregon to Sitka.

No. 5. *Richardson's Dusky Grouse.* — Inhabits Rocky Mountains of British America. South to the Yellow Stone and Hell Gate region of the United States.

No. 6. *Sage Cock, Cock of the Plains.*—Inhabits Artemisia, or Sage Plains of the North-West.

No. 7. *Sharp-Tailed Grouse.*—Inhabits British America from Hudson's Bay territory South to Northern shore of Lake Superior, and West to Alaska and British Columbia.

No. 8. *Columbia Sharp-Tailed Grouse.* — Inhabits Plains and Prairies of the United States from Illinois and Wisconsin West to Oregon and Nevada, South to Colorado and New Mexico, etc.

No. 9. *Pinnated Grouse; Prairie Hen; Prairie Chicken.*— Inhabits Prairies of the Mississippi Valley from Louisiana, northward. East to Pocono Mountains, Pennsylvania; formerly along the Eastern coast of the United States from Long Island to Cape Cod; or farther, a few still left on Naushon and Martha's Vineyard.

10. *Texas Prairie Hen.*—Inhabits South-Western Prairies, Staked Plains, Texas.

No. 11. *Ruffed Grouse; Partridge; Pheasant.*—Inhabits Eastern Province of North America.

No. 12. *The Mountain Partridge.*—Inhabits Rocky Mountains of the United States and interior of British America, from Alaska (on the Yukon) to Canada.

No. 13. *The Oregon Grouse.*—Inhabits Coast Mountains of Oregon, Washington and British Columbia.

No. 14. *Willow Grouse, White Ptarmigan.*—Inhabits Arctic America from Newfoundland to Sitka.

No. 15. *Rock Ptarmigan.*—Inhabits Artic America.

No. 16. *White Tail Ptarmigan.*—Inhabits Alpine Summits of the Western Mountains from latitude 39° in the Rocky Mountains, North into British America, and West to the cascades of Oregon, Washington and British Columbia.

Of these stylish game birds, as far as heard from, we have then in all sixteen varieties inhabiting North America, only four of which varieties are found to the Eastward of the Mississippi River. These are the first, eighth, ninth and eleventh varieties. The first variety, Canada Grouse, is a swamp and forest ranging bird of Northern United States. The eighth variety, Columbia Sharp-Tail Grouse, is said to only occur East of the Mississippi River, in Northern Illinois and Southern Wisconsin. Of the ninth variety, Pinnated Grouse, as well as the first variety, Canada Grouse, and the eighth variety, Columbia Sharp-Tail Grouse, I shall give under their proper heads, their ornithological characters and habits. The second, third, fourth, fifth, sixth, seventh, tenth, twelfth, thirteenth, fourteenth, fifteenth, and sixteenth varieties no where exist to the eastward of the Mississippi River. These I shall only notice by giving their habits, which I shall produce from the best authors in North American ornithology. The eleventh variety, Ruffed Grouse; Partridge; Pheasant, we shall introduce to the sportsman as the object of our pursuit, and the special subject of this treatise, it being found in the whole of the Eastern Province of North America, and is a well known game bird of this country. In the arrangement of this work I shall begin with the ornithological description of the characters and habits of the first, eighth, and ninth varieties, and follow on with the habits of the second, third, fourth, fifth, sixth, seventh, tenth, twelfth, thirteenth, fourteenth, fifteenth and sixteenth varieties. I shall then close the volume, and this department

of my work, with giving a full and complete account, and the best modes I have used in shooting, hunting, and bagging the eleventh variety, Ruffed Grouse, Partridge, Pheasant, reserving only a small space for shooting in woods and thickets.

## SPRUCE PARTRIDGE; CANADA GROUSE.

Canance Canadensis, Var, Canadensis.—Linn.

Sp. Char.—Tail of sixteen feathers. Above black. Feathers above distinctly banded with plumbeous; beneath uniform black, with a pectoral band of white, and white on the sides of the belly. Chin and throat above, black. Tail with a broad brownish-orange terminal band. Length, 16, 20; wing, 6, 70; tail, 5, 44.

*Female* smaller, but somewhat similar; the black bars above broader, the inner gray bars of each feather, including the tail, replaced by broader ones of brownish-orange. The under parts have the feathers black, barred with the brownish-orange, which, on the tips of the belly-feathers, is pure white. The clear continuous black of the head and breast is wanting. The scapulars, greater coverts, and sides are streaked as in the male.

A female (No. 39, 136, G. A. Boardman) from Maine, differs from the above description in having the ground of the plumage a bright orange-rufous, the distinct bars of which are broader than the black ones; this is probably an autumnal bird, and represents the peculiar plumage of that season. *Males* vary, individually, in the extent or uniformity of the black of the breast.

Specimens from Alaska, (Nulato, Kodiak, etc.,) Red River, Liard's River and Fort Liard, Hudson's Bay Territory, Canada, and Maine, appear to be absolutely identical. The young in downy state are pale buff yellow; the head above, with the back and wings, pale fulvous; a black stripe on side of head (from bill to end of auriculars), two spots on crown, and transverse crescentic spots on backs and wings, black.

HAB.—Spruce forests and swamps of the Northern United States to the Arctic Seas; West nearly to Rocky Mountains.—"*North American Birds.*"—*Baird, Brewer and Ridgway.*

HABITS.—Baird, Brewer and Ridgway's description of this bird's habits in the North American Birds, is as follows: "This bird, variously known as the Spruce or Wood Partridge, Canada, Black, or Spotted Grouse, is found, in favorable localities, from the Northern United States as far North as the woods extend, to the Arctic Ocean, being found, even in mid-winter, nearly to the 70th parallel. Sir John Richardson found all the thick and swampy black-spruce forests between Canada and the Arctic Sea abounding with this species. In winter it descends into Maine, Northern New York, and Michigan. Its migrations are, however, only partial, as it is found in the severest weather of mid-winter, in considerable numbers, as far North as latitude 67°. According to Mr. Douglass, West of the Rocky Mountains it is replaced by the *T. franklini*. This bird is said to perch in trees, in flocks of eight or ten, and is so stupid that it may be taken by slipping a noose, fastened to the end of a stick, over its head. When disturbed, it flies heavily a short distance, and then alights again among the interior branches of a tree. Richardson invariably found its crop filled with the buds of the spruce-trees in the winter, and at that time its flesh was very dark and had a strong resinous taste. In districts where the *Pinus banksiana* grows it is said to prefer the buds of that tree. In the summer it feeds on berries, which render its flesh more palatable.

Captain Blakiston states that he has found this species as far West as Fort Carlton, and Mr. Ross has traced it northward on the Mackenzie to the Arctic coast. Mr. Audubon met with it in Maine, in the vicinity of Eastport, where they were only to be met with in the thick and tangled forests of spruce and hackmatack. They were breeding in the inner recesses of almost impenetrable woods of hackmatack or larches. He was informed that

they breed in that neighborhood about the middle of May, a full month sooner than they do in Labrador. In their love season the males are said to exhibit many of the singular manners also noticeabe in the other members of this family. They strut before the female on the ground, something in the manner of the common domestic turkey-cock, occasionally rising in a spiral manner above her in the air; at the same time, both when on the ground and in the air, they beat their wings violently against their body, thereby producing a peculiar drumming sound, which is said to be much clearer than the well-known drumming of the Ruffed Grouse. These sounds can be heard at a considerable distance from the place where they are made.

The female constructs a nest of a bed of dry twigs, leaves, and mosses, which is usually carefully concealed, on the ground and under low horizontal branches of fir-trees. The number of eggs is said to vary from eight to eighteen in number. It is imagined by the common people that where more than ten eggs are found in the same nest they are the product of two females, who aid each other in their charge. The eggs are described by Audubon as of a deep fawn-color, irregularly splashed with different tints of brown. They have but a single brood in a season, and the young follow the mother as soon as they leave the shell. As soon as incubation commences, the males desert the females and keep in small flocks by themselves, removing to different woods, where they usually become much more shy and wary than at any other season of the year. In their movements on the ground these birds are said to resemble our common Quail, rather than the Ruffed Grouse. They do not jerk their tails in the manner of the latter bird, as they walk, nor are they known to burrow in the snow; but when they are pursued they invariably take refuge in trees, from which they cannot be readily made to fly. When driven from one place of refuge to another, they accompany their flight with a few *clucks*, and those sounds they repeat when they alight. When a flock thus alights, it may all be readily secured by a little precaution and

pains. It is said that they are so unwary and regardless of the near presence of man, that when thus in the imagined shelter of a tree they will permit themselves to be approached, the whole flock shot, or even knocked down with a stick. Sometimes they may be all taken alive, one after the other, by means of a noose affixed to the end of a long pole. According to Audubon, the Canada Grouse indicate the approach of rainy weather by retiring to roost at an unusual time in the day, whenever a storm is impending. If observed to fly up to their roost at midday, it rarely fails to rain or snow before the evening; and if, on the contrary, they remain busily engaged in search of food until sunset, the night and following morning are pretty sure to be fresh and clear. The young of this Grouse are very strong and active from the moment they are hatched, and are able to fly at a very early age. When in Labrador, Mr. Audubon almost walked, by accident, upon a female Canada Grouse, surrounded by her young brood. This was about the middle of July. The affrighted mother, upon perceiving him, ruffled up all her feathers in the manner of the common hen, and advanced close to him as if determined to defend her offspring. Her distressed condition claimed his forbearance, and she was allowed to remain in safety. As soon as he retired she smoothed down her plumage and uttered a tender maternal chuck, when the little ones took to their wings with ease, though they appeared to be not more than one week old. Mr. Audubon found this Grouse moulting as early as the 20th of July. At that period the young were generally already able to fly fully a hundred yards in a single flight. They alighted on low trees and were easily taken alive. This Grouse feeds, in the summer, on berries of various kinds, as well as upon the buds and leaves of several different kinds of plants and shrubs. In the autumn they gorge themselves with the berries of Solomon's Seal. At this season their flesh is much the best. In the winter, when they feed on the buds of the hackmatack and the spruce and firs, and also upon the leaves of the spruces, as stated

by Richardson, they have a bitter, disagreeable taste, and are hardly fit to eat. This Grouse may be readily kept in confinement, and even made to breed there. Mr. Thomas Lincoln, of Dennysville, fed some of them on oats, on which food they appeared to thrive very well. The eggs of this bird vary in length from 1,75 inches to 1,68, and in breadth from 1,22 to 1,20 inches. Eggs taken at Fort Resolution, by Mr. Kennicott, have a ground of a deep dull cream color, shaded with ochre. They are of an oblong oval-shape, speckled and marked with spots of a dark chestnut-color. In these specimens the spots are larger towards the smaller end.

## COLUMBIA SHARP-TAIL GROUSE.

Pediœcetes phasianellus, Var, columbianus.—BAIRD.

SP. CHAR.—Prevailing colors yellowish-brown and white; ground-color of head and neck deep buff. Upper parts varigated with transverse spots of black, and more or less tinged with rusty; scapulars without longitudinal spots of white, wing-coverts and outer webs of primaries with large conspicuous spots of pure white, the former roundish, the latter more quadrate. Breast and sides with V-shaped markings of pale yellowish brown, bordered with dusky. Throat immaculate, or only minutely speckled; feathers of tarsus short, the toes completely bare. No appreciable difference between the sexes.

*Male* (22,011, Simiahmoo, Washington Territory; Dr. Kennerly.) Wing, 8, 00; tail, 4, 40, two middle feathers one inch longer.

*Female* (19,173, Rose Briar Creek; F. V. Hayden.) Wing, 8, 80; tail, 4, 00.

HAB.—Plains and prairies of the United States, from Illinois and Wisconsin, West to Oregon, Nevada, etc.; South to Colorado, New Mexico, etc.—"*North American Birds.*"—*Baird, Brewer and Ridgway, Vol. III.*

HABITS.—The description of the habits of this Grouse, is as described in the North American Birds, by Baird, Brewer and Ridgway. They state: "This species is the more Southern of the two varieties of Sharp-Tailed Grouse found in North America. Owing to the confusion which has existed until recently, in which both the Northern and Southern races have been considered as one, the geographical distribution of each may not be defined with complete ex-

actness. The present form is found in Illinois and Wisconsin, and westward to Oregon and Washington Territory, and as far to the North as British Columbia and the Southern portion of the Saskatchewan Valley. Dr. Newberry found this Grouse associated with the Prairie Chicken on the prairies bordering on the Mississippi and the Missouri, and frequently confounded with that bird, though readily distinguishable by its lighter plumage, its speckled breast, and smaller size. It is always the least abundant of the two species, when found together. The range of this Grouse extends much farther westward; the *cupido* being limited to the Valley of the Mississippi, while the former is found as far West as the Valleys of California. North of San Francisco his party first found it on a prairie near Canoe Creek, fifty miles north east of Fort Reading; subsequently, on a level grass-covered plain in the upper canon of Pitt River, these birds were met in great abundance. They were also found about Klamath Lakes and in the Des Chutes Basin, as far as the Dalles. The flesh was very much like that of the Prairie Chicken. This bird is said to lie close, and when flushed to fly off, uttering a constantly repeated *kuck-kuck-kuck*, moving with steadiness and considerable swiftness. It is, however, easily killed. The young birds are fat and tender, and as they fall on the grassy prairie scatter their feathers, as if torn to pieces. According to Dr. Suckley, the Sharp-Tailed Grouse entirely replaces the Pinnated Grouse in Washington Territory. He first noticed it near old Fort Union, at the mouth of the Yellowstone River. From that point to the Cascade Mountains of Oregon and Washington Territory it was exceedingly abundant wherever there was open country and a sufficiency of food. In certain places they were in great numbers in the autumn, congregating in large flocks, especially in the vicinity of patches of wild rye, and more recently near settlements where there were wheat stubbles. They resemble the Pinnated Grouse in habits. Where they are numerous, they may frequently be found, on cold mornings in the Autumn or early Winter, perched on fences

or on leafless trees, sunning themselves in the early sunlight. At Fort Dallas a young bird, scarcely two days old, was found on the first of April. This early incubation seems to prove that they must have more than one brood in a season. The young Grouse was confided to the charge of a Hen with a brood of young Chickens; but it refused to associate with them, and escaped, probably to perish of cold. Dr. Cooper adds that this Grouse is found in Washington Territory only in the low alluvial prairies of the streams emptying into the Columbia East of the Cascade Mountains, where it was found in flocks of several hundreds. They shun high grounds and forests entirely. The only cry he ever heard them utter was a cackle when suddenly started from the ground. Their wings make a loud whirring, as among others of this family. Mr. J. K. Lord found this species abundantly distributed on the western slope of the Rocky Mountains, ranging right and left of the 49th parallel. It was particularly numerous on the plains near the Kootanie River, round Osoyoos Lakes, and in the Valley of the Columbia. He did not meet with any on the western side of the Cascade Range. It is also found in the Red River settlements and in Northern Minnesota. "Mr. Elliott is quite in error in stating that this Grouse does not occur East of the Mississippi, as it is found nearly throughout Northern Illinois and Southern Wisconsin. I have seen a flock within thirty miles of Chicago, and have from time to time had their eggs from Dane county, Wisconsin. Mr. Lord regards this Grouse as remarkable both for its field qualities, such as lying well to a dog, rising with a loud rattling whir, frequenting open grassy prairies, and flying as straight as an arrow, and for its excellence as a table dainty. For delicacy of flavor its flesh is unequaled. With the fur traders this species is known as the Spotted Chicken, and is, furthermore, the *Skis-kin* of the Kootanie Indians. Its singular combination of colors—white, black, and brownish yellow—makes it exactly resemble the ground on which it lives, and admirably harmonizes with the dead twigs and leaves of the artemisia,

the dry and sandy soil, the brown on the withered bunch-grass, and the sombre colored lichens of the rocks. It often requires a keen and practised eye to distinguish one of these birds from the ground on which it has fallen, even though the eye be kept on the spot where it was seen to fall. This similarity of colors with those of the prairie no doubt effectually conceals them from the hawks and owls. Its favorite haunt is on open grassy plains in the morning, keeping concealed in the long thick grass, coming about mid-day to the stream to drink, and to dust itself in the sandy banks. It seldom goes into the timber, always remains close to the prairie, and never retires into the depth of the forests. It lays its eggs on the open prairie in a tuft of grass, or near the foot of a small hillock, nesting early in Spring, and depositing from twelve to fourteen eggs. The nest is a mere hole scratched in the earth, with a few grass stalks and root fibres laid carelessly and loosely over the bottom. Mr. Lord describes the eggs as of a dark rusty-brown, with small splashes or speckles of darker brown thickly spattered over them. After nesting time they appear in broods about the middle of August, the young birds being about two-thirds grown. At this time they frequent the margins of small streams where there is thin timber and underbrush. After the middle of September they begin to pack, two or three covies getting together, and flock after flock joining until they accumulate into hundreds. On the first appearance of snow they begin to perch on the dead branches of a pine or the tops of fences. Near Fort Colville, after snow fell, they assembled in vast numbers in the large wheat stubbles. They became wary and shy, the snow rendering every moving thing so conspicuous that it was next to impossible for dogs to hunt them. The food of this Grouse consists principally of berries in the Summer months, such as the snowberry, the bearberry, the haws of the wild rose, and the whortleberry, grain, the larvæ of insects, grass seeds, etc. In the Winter they run over the snow with ease and celerity, dig holes in it, and burrow underneath in the manner of a Ptarmigan. During

the two winters Mr. Lord spent at Colville, flocks of these birds congregated around the hay ricks at their mule camp. In a temperature often 30° and more below zero, and the snow several feet deep, they were strong, fat, and wild, and did not appear to suffer at all from the intense cold. Indeed, they are said to pair very early in the Spring, long before the snow has gone off the ground, and their meeting is preceded by some very singular performances, which are called by the fur traders chicken-dances, to several of which Mr. Lord was an eye-witness. Groups of these birds assembled for their dances either about sunrise or late in the afternoon, selecting for the purpose a high round topped mound, which in the course of their evolution becomes worn quite bare. At one of the dances witnessed by Mr. Lord there were about twenty birds present; the birds nearest him were head to head, like game-cocks in fighting attitude,—the neck feathers ruffed up, the little sharp tail elevated straight on end, the wings dropped close to the ground, but keeping up a rapid vibration or continued drumming sound. They circled round and round each other in slow waltzing time, always maintaining the same attitude, but never striking at each other. Sometimes the pace increased, and one pursued the other until the latter faced about. Others jumped about two feet in the air until out of breath, and then strutted about in a peculiar manner; and others went marching about with tails and heads as high up as they could get them. Captain Blakiston states that on the Saskatchewan this species was very generally distributed throughout the interior. He met with it just below the forks of the Saskatchewan, and traced it to the western base of the Rocky Mountains. He found it breeding at Fort Carlton. He regards these birds as of polygamous habits. In the Fall they are found in families, in the semi-wooded country bordering on the prairies. They perch on trees, frequently at the very top, and their crops are found stuffed out with berries. These are chiefly the fruit of the bearberry, the ground juniper, the snowberry, the small prairie roses,

the buffaloberry, and several kinds of buds. They have also been known to feed on caterpillars and other insects baked and crisped by prairie fires. Captain Blakiston was also an eye witness of one of the singular love performances of these birds, known as dances. His account of it, which is very full, is almost exactly in correspondence with the account referred to as given by Mr. Lord.

Mr. Ridgway met with this Grouse at one locality only, encountering them late in September in the Upper Humboldt Valley. There it was found in considerable numbers in the rye-grass meadows on the foot-slopes of the Clover Mountains. They were startled from the ground, where they were hidden in the grass, and when surprised frequently took refuge in the willow-thickets along the streams near by. Their flesh was found to be most excellent. The eggs of this species vary considerably in size, but average about 1,80 inches in length, and 1,30 in breadth. They are oval in shape, slightly pointed at one end. Their ground varies from a light clay to a dark rusty brown, generally plain, but frequently speckled minutely with fine dottings of a darker brown.

## PRAIRIE HEN; PRAIRIE CHICKEN; PINNATED GROUSE.

**Cupidonia cupido, Var, cupido.—Baird.**

SP. CHAR.—*Male* (10,006, Tremont, Illinois; W. I. Shaw.) Ground-color above ochraceous-brown, tinged with grayish; beneath white, the feathers of the jugulum dark rusty-chestnut beneath the surface. Head most deep buff. Upper parts much broken by broad transverse spots, or irregular bars, of deep black, this color predominating largely over the lighter tints. Primaries and tail plain dusky; the former with roundish spots of pale orchraceous on outer webs, the latter very narrowly tipped with white. Lower parts with regular, continuous, sharply defined broad bars, on narrow bands, of clear dusky-brown. A broad stripe of plain brownish-black on side of head, beneath the eye, from rictus to end of auriculars; a blotch of the same beneath the middle of the auriculars, and the top of the head mostly blackish, leaving a broad superciliary and maxillary stripe, and the whole throat immaculate buff. Neck-tufts 3,50 inches long, deep black; the longer ones uniform, the shorter with only the edge black, the whole middle portion pale buff, shading into deep reddish-rusty next to the black. Wing, 9,00; tail, 4,50; bill, .40 deep, by .50 long, from nostril; tarsus, 2,10; middle toe, 1,85.

*Female* similar, but with shorter and inconspicuous cervical tufts. *Young* (25,998, Rockford, Illinois; Blackman.) Above, including tail, yellowish-brown; feathers with conspicuous white shaft streaks and large blotches of deep black. Outer webs of primaries with whitish spots. Top of head rusty-brown with a black vertical and a dusky

auricular patch. Lower parts yellowish-white, with irregular defined, transverse, grayish-brown broad bars; anteriorly more spotted, the jugulum tinged with brown.

*Chick* (25,989, Rockford, Illinois.) Bright lemon-buff, tinged on sides and jugulum with reddish; upper parts much washed with rusty. A narrow auricular streak, blotches on the vertex and occiput, a stripe across the shoulder, and blotches down the middle of the back and rump, deep black.

HAB.—Prairies of the Mississippi Valley, from Louisiana, northward. East to Pocono Mountains, Pennsylvania. Formerly along the eastern coast of the United States from Long Island to Cape Cod, or farther. A few still left on Naushon (?) and Martha's Vineyard.

A pair from Calcasieu Pass, Louisiana, most resemble Illinois specimens, but are smaller, (wing, 8,60, instead of 9,00,) and there is rather more reddish, with less black, in the plumage.

HABITS.—The Pinnated Grouse, more generally known through the country as the Prairie Chicken or Prairie Hen, once occurred as far to the East as Massachusetts, a few still remaining on the Island of Martha's Vineyard, and where it was, in the early settlement of the country, a very abundant bird; and to the Southwest to Texas and throughout the Indian Territory, where it appears to be extending with the areas developed by civilization, while at the East this bird has almost entirely disappeared, in consequence of the increase of population, and except here and there in a few small and distant districts has disappeared from the Middle and Eastern States; at the West and Southwest it has greatly extended its distribution, appearing in considerable numbers, and constantly increasing as the country is settled and the land cultivated with grain. Even in Illinois, where there has been a large increase of population during the past ten years, these birds are known to have become much more numerous. It is, however, probable that they will again be driven from this region when the population becomes quite dense. Mr.

Allen met with this species in several points in Kansas and in Colorado, where they had either just made their appearance, or where they had recently been noticed, and were observed to be on the increase. The small remnants left in Massachusetts are protected by law, which may preserve them a few years longer; and in Illinois and other Western States stringent provisions seek to prevent their wanton destruction. In Michigan, according to Mr. D. D. Hughes, this Grouse is common in the two Southern tiers of counties, but is rarely met with in that State farther North—an absence attributable to the want of open country and suitable food, as West of Lake Michigan it is found in great abundance much farther North. In the more Southern portion of the State it is already very rare, and in localities completely exterminated. Dr. Woodhouse found this bird quite abundant throughout the Indian Territory; more numerous, however, in the vicinity of settlements. During the Fall of 1849, as he was passing down the Arkansas River, along the road leading from Fort Gibson to Fort Smith, these birds were in large flocks, feeding among the oaks upon the acorns; hundreds were to be seen at the same time. It was also very common throughout Eastern Texas. Mr. Dresser found the Pinnated Grouse very common in travelling from Brownsville to Victoria, after leaving the Chaparral and entering the Prairie country. Throughout the whole of the prairie country of Texas it is abundant. They were found by Mr. Audubon especially abundant in the States of Kentucky, Missouri, Illinois, and Indiana, where his observations date back more than half a century, and when the country was comparatively unsettled. It was there, he states, in what was then known as the Barrens of Kentucky, that before sunrise, or at the close of the day, he "heard its curious booming, witnessed its obstinate battles, watched it during the progress of its courtships, noted its nest and eggs, and followed its young until, fully grown, they betook themselves to winter quarters." When he first removed to Kentucky the Pinnated Grouse were so plentiful, and were held in

such low estimation, that no hunter deigned to shoot them. They were, moreover, looked upon with ill-favor by the inhabitants on account of the mischief they committed among the fruit trees of the orchards during Winter, when they feed upon the buds, or in the Spring, when they consumed the grain in the fields. In those days, in the Winter, this Grouse would enter the farm-yard and feed among the poultry, would even alight on the house-tops or walk in the streets of the villages. On one occasion he caught several alive in a stable at Henderson, where they had followed some Wild Turkeys. Twenty-five years later, Mr. Audubon adds, in the same country where they had been so very abundant, scarcely one could be found. Mr. Audubon speaks of their selling in Eastern markets, in 1840, at from five to ten dollars per pair. This is so no longer, facilities in railroad transportation and their continued abundance at the West rendering them a comparatively plentiful and cheap article of food. Mr. Audubon mentions that at the same period they were still to be met with in some portions of New Jersey, in the "bushy" plains of Long Island, on Mount Desert Island in the State of Maine, and also in another tract of barren country near Mar's Hill in the same State. In regard to the two last named localities he may have been misinformed. Mr. Lawrence mentions this species as still occurring in the vicinity of New York City. Mr. Turnbull mentioned it as now very rare, but occasionally met with in the counties of Monroe and Northampton in Pennsylvania, and on the plains in New Jersey. It is not referred to by either Professor Verrill or Mr. Boardman as occurring in any part of Maine. It is, however, given by Mr. McIlwraith as an occasional visitor near Hamilton, in Canada, on the western frontier, a few individuals being occasionally observed along the banks of the St. Clair River, but not known to occur farther East. Mr. Audubon also mentions having found these birds abundant in all the vast plains bordering on the prairies of the Arkansas River, and on those of the Opelousas in Louisiana. In the earliest days of Spring, even before the snows have

all been melted, these birds no longer keep in large flocks, but separate into smaller parties, and the mating-season commences, during which their manners, especially those of the male, are very peculiar and striking. A particular locality is selected, to which they resort until incubation has commenced. The males meet in this place, and engage in furious battle with one another. At this season they are especially conspicuous for their great pomposity of bearing; with tails outspread and inclined forward to meet the expanded feathers of their neck, and with the globular, orange-colored, bladder-like receptacles of air on their necks distended to their utmost capacity, and issuing a peculiar sound, spoken of as *booming*, these birds strut about in the presence of one another with various manifestations of jealous dislike and animosity, soon ending in furious contests. Their wings are declined, in the manner of the Cock-Turkey, and rustle on the ground as the birds pass and repass in a rapid manner; their bodies are depressed, and their notes indicate their intense excitement. Upon the appearance of a female answering to their calls, they at once engage in their desperate encounters. They rise in the air and strike at one another in the manner of a Game Cock, and several engage in a miscellaneous scrimmage, until the weaker give way, and, one after another, seek refuge in the neighboring bushes, the few remaining victors discontinuing their contests as if from sheer exhaustion. The "booming" or "tooting" sounds made by these birds is heard before daybreak, and also at all hours before sunset, in places where they are abundant and tame; but where they are rare and wild they are seldom heard after sunrise, and their meetings then are in silence. Even in the Fall the young males evince their natural pugnacity by engaging in short battles, which their parents usually interrupt and put a stop to. This bird nests, according to the locality in which it is met with, from the beginning of April to the last of May. In Kentucky, Mr. Audubon has found their nests with eggs early in April, but the average period there was the first of May. Their nests he describes

as somewhat carelessly formed of dry leaves and grasses, interwoven in a tolerably neat manner, and always very carefully placed among the tall grass of some large tuft in the open ground of the prairies, or, in barren lands, at the foot of a small bush. The eggs are said to be from eight to twelve in number, never more; they are larger and more spherical than those of the common *umbellus*, and are of a darker shade. The female sits upon them about twenty days, and as soon as the young can extricate themselves from the shell the mother leads them away, the male having previously left her. Early in the Fall the various broods begin again to associate together, and at the approach of Winter it is not uncommon to see them in flocks of several hundred individuals. The young broods, when come upon suddenly and taken by surprise, instantly scatter and squat close to the ground, so that, without a dog, it is impossible to find them. The mother gives a single loud chuck as a signal of danger, and the young birds rise on the wing and fly a few yards in different directions, and then keep themselves perfectly still and quiet until the mother recalls them by a signal indicating that the peril has passed. In the meanwhile she resorts to various devices to draw the intruder away from the place. This Grouse raises but a single brood in a season; and if the first laying has been destroyed or taken, the female seeks out her mate, makes another nest, and produces another set of eggs. These are usually smaller in size and less in number than those of her first laying. The Pinnated Grouse is said to be easily tamed, and may be readily domesticated, though I do not know that the experiment has been thoroughly tried. Mr. Audubon once kept sixty of them in a garden near Henderson, Ky. Within a week they became tame enough to allow him to approach them without being frightened. He supplied them with abundance of corn and other food. In the course of the Winter they became so gentle as to feed from the hand, and walked about his garden like so many tame fowl, mingling occasionally with the poultry. In the Spring they strutted,

"tooted" and fought as if in their wild state. Many eggs were deposited, and a number of young birds were hatched out; but they proved so destructive to the vegetables that the experiment was given up and the Grouse were killed. The male birds were conspicuous for their courage, and would engage in contest with the Turkey-Cocks, and even with the Dung-Hill Cock, rather than yield the ground. In severe weather these birds have been known to roost in trees, but they generally prefer to rest on the ground. Advantage is sometimes taken to secure them by visiting their resting-places in the night with nets. On the ground they walk somewhat in the manner of the common Hen, but in a more erect attitude. When surprised, they rise with a whirring sound; but if they perceive the approach of any one at a sufficient distance, they run off with considerable speed, and hide by squatting in the grass or among bushes. They are fond of dusting themselves in ploughed fields or in dusty roads, rearranging their feathers in the manner of the Wild Turkey. When the female, with her young brood, is surprised, she instantly ruffles up her feathers, and acts as if she contemplated flying in your face; this she rarely, if ever, attemps, but resorts to various artifices to decoy the intruder away. Their flight is said to be strong, regular, and swift, and may be protracted to the distance of several miles. It is less rapid than that of the *umbellus*, and the whirring, as they rise from the ground, less conspicuous. As they rise, they utter four or five very distinct clucks, but at times fly in silence. Their flesh is dark, and the flavor is very distinctly gamy, and is generally regarded as excellent. In the love-season the males inflate the two remarkable air bladders, which, in color and shape, resemble small oranges, lower their heads to the ground, open their bills, and give utterance to very singular and distinctly separated notes, by means of the air contained in those receptacles, rolling somewhat in the manner of the beatings of a muffled drum. The air-reservoirs are alternately filled and emptied as they make these sounds. Their notes may be heard to the distance of nearly a mile.

When these skins are punctured, they are no longer resonant. The late Mr. David Eckby, of Boston, furnished Mr. Audubon with a full account of their habits, as observed by him in Martha's Vineyard, and also on the Island of Nashawena, where they were then kept in a preserve. They were observed never to settle down where the woods were thick or the bushes tangled, but invariably in the open spaces; and as they never start up from the thick foliage, but always seek to disengage themselves from all embarrassment in their flight by reaching the nearest open space, they offer to the sportsman a very fair mark. The sound they utter in rising, when hard pressed, is said to resemble the syllables *coo-coo-coo*. They were observed to feed on the berries of the barberry, which abound on those islands, boxberries, cranberries, the buds of roses, pines, and alders, and on the nuts of the post oaks, and in the Summer upon the more esculent berries. At the West they frequently feed on the seeds of the sumach. They are also very destructive to the buds of the apple, and are very fond of the fruit of the fox grape and the leaves and berries of the mistletoe. During the planting-season their visits to the wheat and corn-fields are often productive of great damage. Three eggs in my collection, taken from a nest near Osage Village, in Indian Territory, which contained sixteen eggs, measure, one 1,65, by 1,20 inches; another 1,63 by 1,28; and the third 1,75 by 1,28 inches. They are of a rounded-oval shape, more obtuse at one end than the other, and of a uniform color, which varies from a light clay-color to a dark tawny-brown. The eggs are sometimes, but not always, minutely sprinkled with brown. —*Vol. III., Baird, Brewer and Ridgway.*

## FRANKLIN'S GROUSE.

Canace canadensis, Var. franklini.—Douglass.

HABITS.—From the Rocky Mountains to the Pacific, and from Oregon to high northern latitudes, this variety replaces the common Spruce Partridge of the Eastern Continent. Sir John Richardson, as well as Mr. Drummond, regarded these birds as only a western variety of the *canadensis*. The latter, who had ample opportunities for studying the manners of both, was unable to perceive any difference between them. Mr. Douglas took a different view, though he admitted that their habits were essentially the same. Swainson also regarded the two birds as a distinct species. This variety is stated by Richardson to inhabit the valleys of the Rocky Mountains, from the sources of the Missouri to those of the Mackenzie; and on the authority of Mr. Douglas, it is also to be seen sparingly on the elevated platforms that skirt the snowy peaks of Mount Hood, Mount St. Helens, and of Mount Baker, where it is said to run over the shattered rocks and among the brush-wood with amazing speed, only using its wings as a last effort to escape. Mr. Douglas also states that it makes its nest on the ground, of dried leaves and grass, not unfrequently at the foot of decayed stumps, or by the side of fallen timber in the mountain woods. The eggs are incorrectly described as of a dingy whiteness, and as smaller than those of the European *Columba palumbus*.

Dr. Suckley found this Grouse abundant in the Rocky as well as in the Bitterroot and the Cascade Mountains, and in Washington Territory, near the Yakima Passes. It is known to the Indians as the *Tyee-kulla-kulla*, meaning the *gentleman-bird*. It was only found plentiful in the

eastern portion of Washington Territory. Specimens of this species, sent by Dr. Suckley to the Smithsonian Institution, were procured by Mullan in St. Mary's Valley, in the Rocky Mountains. They were quite common in that region, and were readily obtainable, as they were very tame and unsuspicious. Mr. George Gibbs informed Dr. Suckley that in November, 1847, he obtained in the Willamette Valley a small Grouse that may probably be referred to this species.

Mr. Lord thinks that this species is rarely found west of the Cascades; but on the Eastern side and along the whole district lying between the Cascades and the Rocky Mountains it is common, always keeping among the mountains, to the height of seven thousand feet. He regards them as one of the most stupid of birds. When several are flushed together, they fly up into the nearest pine tree, from which you cannot frighten them with sticks and stones. He has often shot several in a tree where there were others without the latter attempting to fly away. During the winter they remain in the deep woods and sheltered places, and feed on the buds of the pines. They nest in early May, and have chickens in June and July. He was of the opinion that these birds do not pair; but from the large number of females, as compared with the males, he thinks they are polygamists.

Captain Blakiston considers this variety to be confined to the Rocky Mountains and the country between that range and the Pacific. He met with it for the first time while following an Indian trail through a thick pine woods, from the summit of the Kootenay Pass into the valley of the Flathead River. The bird arose and perched itself on a projecting branch, when he was at once struck with the dissimilarity to the Canada Grouse, which was made apparent by the whiteness of its flesh. Afterwards he procured other specimens. He describes them as being quite as unsuspicious and stupid as the Canada Grouse, allowing themselves to be shot on the trees without making any attempt to escape.—*Baird, Brewer and Ridgway.*

## DUSKY GROUSE.

Canace obscurus Var, obscurus.—Say.

HABITS.—This species was first discovered and described by Say in 1820, though its existence had previously been known to the fur trappers. Its food consists of various berries, and the flesh is said to be very palatable.

Dr. Newberry pronouuces this Grouse decidedly the handsomest of all the American birds of this family; its flesh white, and fully equal to that of the eastern Ruffed Grouse or Quail. It is said to inhabit the evergreen forests exclusively, and to be found not uncommonly in the Sierra Nevada, as well as in the wooded districts of the country lying between the Sacramento valley and the Columbia. In the Cascade Mountains Dr. Newberry found it associated with the Ruffed Grouse, which it resembles in habits more than any other species. When on the ground they lie very close, flying up from your very feet as you approach them, and, when flushed, always take to a tree, from which they cannot be dislodged except by shooting them. In the Spring the male sits motionless on a branch of a pine or a spruce, and utters a booming call, which, by its remarkable ventriloquial powers, seems rather to mislead than to direct the sportsman, unless he is experienced in shooting this kind of Grouse.

Mr. George Gibbs informed Dr. Suckley that he has met with the Dusky Grouse as far South as the Russian River Mountains, in California, and found it also common on the east side of the Cascade, as far north as the 49th parallel.

Dr. Cooper's account of these birds is substantially similar to the account given by Dr. Suckley of the *fuliginosus*.

He found it common in most of the forests, especially in the dense spruce woods near the coast. It was rarely seen on the open prairie. In the dense woods it was exceedingly difficult to detect. During May, near the coast, and till August, on the mountains, the low tooting of this Grouse was heard everywhere, sounding something like the cooing of a Pigeon, but in the same deep tone as the drumming of the Ruffed Grouse. Dr. Cooper also mentions its remarkable powers of ventriloquism, so that while the bird may be sitting on a tree directly over your head the sound seems to come from places quite remote.

Dr. Woodhouse states that the Dusky Grouse is found among the mountains about Santa Fe, in New Mexico.

This Grouse was first met with by Mr. Ridgway on the Sierra Nevada, in the vicinity of Carson City, where it was seen in the possession of Indians who had been hunting on the mountains. It was found on the East Humboldt Mountains, in the month of September, and at that time occurred in small flocks, consisting chiefly of young birds, and probably composed of single families. Afterwards, in the summer of 1869, it was found in considerable abundance in Parley's Park, a few miles from Salt Lake City. It there chiefly inhabited the copses of scrub-oaks along the lower border of coniferous woods. In July it was found in the Uintah Mountains in very great abundance, and for a while formed the chief subsistence of the party. It was there known as the Mountain Grouse. Nothing very distinctive was ascertained in regard to its habits, except it was said to resemble very closely, in manners, the Ruffed Grouse. Its flesh was excellent eating.

Dr. Suckley, in a series of papers on the Grouse of the United States, which were read before the New York Lyceum in 1860, states that this species probably extend their range to quite a distance south of latitude 40° along the line of the Rocky Mountains, in New Mexico. This writer claimed to have met with them near Pike's Peak, in the Cheyenne Pass, and in 1853 he found them in great numbers in Lewis and Clarke's Pass, west of Fort Benton. He

also found them abundantly in Oregon and on the slopes of the cascade and coast ranges, extending wherever pine or fir timber occurs, to the very borders of the ocean. The Black Hills, in Nebraska, he gives as their most eastern limit.

The same author corrects the statement of Douglas as to certain habits of this species. The males are said not to be particularly pugnacious, and very rarely forsake the boughs of the pine or fir trees for a rocky eminence. They feed on berries only during a brief season in autumn, at all other times of the year subsisting upon the leaves of the pine and fir, especially those of the Douglas Fir. This food imparts a strong resinous flavor to the flesh of this Grouse, which, however, is not unpleasant, and after awhile becomes quite attractive to the epicure. The love-notes of this bird are said to be deep, soft, plaintive, but unmusical, and resemble the whirring sounds made by a rattan, swung rapidly and in jerks through the air. These notes usually begin the first week in March. The young are able to fly feebly by the first of July. By the last of August they have attained their full size. In the winter they retire to the tops of the loftiest firs, where they pass the season in an almost immovable state of hibernation. Between July and winter they may be readily shot. Once raised, they invariably fly to trees. They heed but little the report of a gun unless they have been wounded. Their flesh is said to be midway between the color of the Pinnated and Ruffed Grouse, partaking of their good qualities, but surpassing either.

The eggs of this species are oval in shape; and one end is a little more obtuse than the other. The ground is of a pale cream-color, and is marked with small rounded spots of reddish-brown. These are more numerous and larger towards the larger end. They measure 1.95 inches in length, and 1.45 in breadth.—*Baird, Brewer and Ridgway.*

## OREGON DUSKY GROUSE.

Canace obscurus, Var, fuliginosus —Ridgway.

HABITS.—This race is the more northern and northwestern coast form of the Dusky Grouse, and is found from the Columbia River and British Columbia to Alaska. According to Dr. Suckley, it is generally known as the Blue Grouse in Oregon, and it is also called the Pine Grouse, as well as the Dusky Grouse. He met with it for the first time when his party had reached the main chain of the Rocky Mountains, and where they found it exceedingly abundant, as afterwards in the Blue Mountains of Oregon, the Cascade Mountains, and in all the timbered country between the Coast Range and the Pacific Ocean. About the middle of November these birds are said to entirely disappear, and it is very rare to meet with even a single individual between that period and the 20th of the following March. As to their whereabouts during this period there is a great difference of opinion among the settlers. Some maintain that they are migratory and retire to the South. Others are of the opinion that they retire to the tops of the highest evergreen trees, where they pass the cold season in a state of partial torpor among the thickest foliage of the branches. As these birds are known to subsist on the leaves of the *coniferæ*, and can always obtain sufficient water from the snow and rain-drops to supply their wants, Dr. Suckley was inclined to favor the latter explanation of their absence. He saw one of these birds on the ground during a fall of snow, in January, near the Nisqually River, in Washington Territory, and he was informed that a hunter near Olympia, whose eyesight was remarkably excellent, was able, any

day during the winter, to obtain several birds by searching carefully for them among the tree-tops of the tallest and most thickly leaved firs. This requires much better eyesight than most men possess, for these birds are of a sombre hue, crowd very closely to the limb, and sit there immovable. They are therefore very difficult to find among the dense branches.

The first indication of their presence in the spring is the courting call of the male. This is a prolonged sound, resembling the whir of a rattan cane moved rapidly through the air. This is repeated several times with considerable rapidity, and then stops for a brief interval. This is said to be produced by the alternate inflation and contraction of sacs, one on each side of the throat, which are usually concealed by the feathers, and are covered by an orange-colored, thick, corrugated skin. At Fort Steilacoom these birds were very abundant during the spring and early summer, and were mostly confined to the forests of firs. Later in the season, and after hatching, they are more generally found on the ground in search of berries and seeds. When alarmed, they seek safety among the dense foliage of the trees, seeming instinctively to understand the advantage of thus hiding. He has known an entire flock of five, concealed among the ferns and grass, to be shot one by one, without an attempt being made by a single individual to fly. This Grouse is said to be a very fine table bird, its pine taste only adding to its game-flavor. Their full weight is from $2\frac{3}{4}$ to $3\frac{1}{2}$ pounds.

Dr. Cooper never met with the nest of eggs of either of the races of the Dusky Grouse, but in June flocks of half-grown young were killed by the Indians near Puget Sound. In winter they were so rarely seen west of the mountains that they are believed to keep entirely in the trees. In October, 1853, he saw a flock running through the snow near the Spokane Plains, one of which was shot; but he never afterwards met with any in the winter.

Mr. J. R. Lord found this Grouse almost exclusively on the western side of the Rocky Mountains. It appeared at

Vancouver, at Nisqually, and along the banks of the Fraser River, about the end of March, the male bird announcing his coming by a kind of love-song. This is a booming noise, repeated at short intervals, and so deceptive, that Mr. Lord has often stood under the tree where the bird was perched and imagined the sound came from a distance.

Mr. Nuttall found this Grouse breeding in the shady forests of the region of the Columbia, where he saw or heard them throughout the summer. He describes the tooting made by the male as resembling the sound caused by blowing into the bung-hole of a barrel. They breed on the ground, and are said to keep the brood together all winter.

Townsend describes the eggs as numerous, of a cinereous-brown color, blunt at both ends, and small for the bird. The actions of the female, when the young are following her, are said to be exactly similar to those of the Ruffed Grouse, employing all the artifices of that bird in feigning lameness, etc., to draw off intruders.—*Baird, Brewer and Ridgway.*

## RICHARDSON'S DUSKY GROUSE.

Canace obscurus, Var, richardsoni.—Douglas.

HABITS.—In regard to distinctive peculiarities in habits and manners, of this form of Grouse, if it possesses any, our information is quite limited. In its external markings and in size it appears to be readily distinguishable from the *T. obscurus*, either specifically or as a well-marked interior race.

Mr. J. K. Lord refers to it in his account of the *obscurus*, where he states that between the Cascades and the Rocky Mountains the Dusky Grouse appears to be replaced by a well-marked variety, if a not distinct species. In size it is a trifle smaller, but the great mark of distinction is the entire absence of the white band at the end of the tail. In their habits, in their periods of arrival and departure, or rather of appearance and disappearance, the two varieties are pronounced to be, in every respect, similar. In regard to their unexplained disappearance and reappearance, Mr. Lord is of the opinion that these birds do not migrate, but only retire into the thickest trees, and, living on the buds, pass the winter thus sheltered in the tree-tops.

Captain Blakiston thinks that this species is the form that inhabits the interior of British North America, and refers the figure of the male in Richardson's *Fauna* to the *richardsoni*—the Black-tailed and smaller species. In his wanderings he met with these birds only in or near the pine woods on the slopes of the Rocky Mountains; but, having killed only females, he could not feel certain of the species. These Grouse range towards the Pacific as far as the Cascade Mountains of Oregon and British Columbia, and along the Rocky Mountains from the head-waters of

the Platte to the Liard River, a tributary of the Mackenzie. When the ranges of the two species are fully defined, he thinks the *T. richardsoni* will be found the more northern bird.

The eggs of *Tetrao richardsoni* are very similar, except in size, to those of the *obscurus*, resembling them closely in their ground-color, as well as in their markings. In the specimens in the Cabinet of the Boston Natural History Society the spots are smaller, a little less distinct, and less numerous. The eggs are 1.75 inches in length and from 1.35 to 1.36 in breadth.—*Baird, Brewer and Ridgway.*

## SAGE COCK; COCK OF THE PLAINS.

Centrocercus urophasianus, (Bon)—Sw.

HABITS.—The Cock of the Plains appear to be confined to dry and sterile regions, from the Black Hills to California and Oregon, and from British Columbia nearly to Arizona, but only in those portions of the Plains in which the *Artemisia* or sage abound. It was met with by Townsend for the first time about fifty miles west of the Black Hills. He did not find them in the valley of the Snake River, but saw them again at Wallah-Wallah, on the banks of the Columbia, and near the mouth of the Lewis River. He only found it on the plains that produce the wormwood, on which plant it feeds, and in consequence of which the flesh becomes so bitter that it is unfit for food. It was very unsuspicious and easily approached, rarely flying unless hard pressed, and running ahead at the distance of a few feet, clucking like the common Hen. When disturbed it would often run under the horses' feet. According to his account it rises very clumsily, but, when once started, flies with great rapidity and also to a great distance. It is said to have the sailing motion of the Pinnated Grouse. They are abundant in autumn on the branches of the Columbia, at which time they are regarded as good food by the natives, and are taken in great quantities in nets.

Mr. Nuttall met with this Grouse in considerable numbers on the north branch of the Platte. They were always on the ground in small flocks or pairs, by no means shy; but when too nearly approached, uttering a rather loud but short guttural cackle, and rising with a strong whirring sound. Their notes, at times, strongly resemble those of

the common Hen. He never met with them in any forest, nor have they been taken near the coast of California.

This species was first obtained by Lewis and Clarke's party in their expedition to the Rocky Mountains. It was afterwards met with by Douglas, who published in the Linnæan Transactions (XVI, p. 133), an account of its habits. He described its flight a slow, unsteady, and as affording but little amusement to the sportsman; being a succession of flutterings, rather than anything else. They rise hurriedly, giving two or three flaps of the wing, swinging from side to side in their movement, and gradually falling, making a whirring sound, at the same time uttering a cry of *cuck-cuck-cuck*, like the common Pheasant. They pair in March and April.

At the mating-season the male is said to select some small eminence on the banks of streams for the very singular performance it goes through with at that period in the presence of its mate. The wings are lowered and dragged on the ground, making a buzzing sound; the tail, somewhat erect, is spread like a fan, the bare and yellow œsophagus is inflated to a prodigious size, and said to become nearly half as large as its body, while the silky flexile feathers on the neck are erected. Assuming this grotesque form, the bird proceeds to display a singular variety of attitudes, at the same time chanting a love-song in a confused and grating, but not an offensively disagreeable tone, represented as resembling *hurr-hurr-hurr-r-r-r-hoo*, ending in a deep and hollow utterance.

Their nests were found, by Douglas, on the ground, under the shade of *Artemisia*, or when near streams, among *Phalaris arundinacea*, and were carefully constructed of dry grass and slender twigs. The eggs are said to be as many as from thirteen to seventeen in number, and the period of incubation to be twenty-one or twenty-two days. The young leave the nest soon after they are hatched.

In the winter these birds are said to be found in large flocks of several hundreds, in the spring in pairs, and later in the summer and fall in small family groups. They were

abundant throughout the barren arid plains of the Columbia and in Northern California, but were not met with east of the Rocky Mountains.

Dr. Newberry regards this Grouse, when in full plumage, as rather a handsome bird, and much better looking than any figure he has seen of it. It is much the largest of American Grouse, weighing from five to six pounds. The female is much smaller than the male, and is of a uniform sober-brown color. The male bird has a distinctive character in the spaces of bare orange-colored skin which occupy the sides of the neck, and are usually concealed by the feathers, but may be inflated to a great size. The species was not found in the Valleys of California, but belongs both to the fauna of the interior basin and to that of the Rocky Mountains, the dry desert country lying on both flanks of this chain. He first found it high up on Pit River, and once came suddenly upon a male in an oasis near a warm spring, which started up with a great flutter and rush, and, uttering a hoarse *hek-hek*, flew off with an irregular but remarkably well-sustained flight, which was continued until the bird was out of sight. In searching around he soon found its mate, which rose from under a sage-bush with a noise like a whirlwind. This specimen was secured, and these birds were afterwards found to be quite abundant, but very strong-winged and difficult to kill. It was no uncommon thing, Dr. Kennerly states, for him to pour a full charge of shot into them at a short distance, dislodging a quantity of feathers, and yet to have them fly off to so great a distance before they dropped that he could not follow them. He found them only in the vicinity of the sage-bushes, under which they were usually concealed. He afterwards saw them very abundant on the shores of Wright and Rhett Lake. In one instance he observed a male bird to sink down on the ground, as the train approached, depressing its head, and lying as motionless as a stick, which it greatly resembled. As he moved towards it, the bird lowered its head until it rested on the ground, and made itself as small as possible, and did not

rise until he had arrived within fifteen feet of it. West of the Cascade Range it did not occur, and all its preferences and habits seemed to fit it for the occupancy of the sterile region of the central desert. Its flesh is dark and highly flavored with the wormwood. The young, if parboiled and stewed, are said to be quite good; but, on the whole, this Grouse is inferior for the table to any other American species.

Dr. Cooper gives this bird as common in Washington Territory, on the high barren hills and deserts east of the Cascade Mountains, and limited in its range by the growth of the *Artemisia tridentata*, the leaves of which shrub seem to be the principal part of its food; the flesh tasting so strongly of it as to be unpalatable. He saw none north of the Spokane Plains, the country being apparently too woody. On those plains they were very common. He describes its flight as more heavy and less noisy than that of most Grouse, and when they are started, it commonly extends a long distance before alighting.

Dr. Suckley found the Sage-Cock abundant on the plains of Oregon, near Snake River, on both sides of the Blue Mountains, as also along the line of the Columbia, on the open plains, and on the sage-barrens of the Yakima and Simcoe Valleys,—in fact, wherever the artemisia was found. The leaves of this shrub either are preferred or are necessary to its existence, for no other food was found in their full stomachs, even in localities where abundance of grass seed, wild grain, grass hoppers, and other kinds of food, might be found. This species has apparently the power of going a long while without water. Lieutenant Fleming informed Dr. Suckley that he found them about twelve miles west of Fort Laramie, but they were not seen east of that point so far south. In August, 1853, one was procured about two hundred miles east of the Rocky Mountains. He also observed a small flock on the plains bordering on Milk River, in Nebraska. Near Soda Lake, the sink of the Mohave River, Dr. Cooper met it, which is without

doubt the most southern point at which it has been discovered.

Dr. Coues has never met with it in Arizona.

Mr. Ridgway encountered it everywhere in the Great Basin where there was a thrifty growth of the artemisia, which appears everywhere to regulate its existence. He corroborates the account given of its heavy, lumbering flight; and when it has once escaped, it flies so far that the sportsman rarely has a second opportunity to flush it. It rises apparently with great effort. He was told by the settlers of Nevada and Utah that the Sage-Hen was never known to touch grain of any kind, even when found in the vicinity of grain fields. This is attributed to a very curious anatomical peculiarity of the species,—the entire absence of a gizzard; having instead a soft membraneous stomach, rendering it impossible to digest any hard food. In a large number of specimens dissected, nothing was found but grass-hoppers and leaves of the artemisia.

Two eggs in my cabinet, from Utah, measure, one 2.20 by 1.50 inches, and the other 2.15 by 1.45. They are of an elongate-oval shape, slightly pointed at one end. Their ground color varies from a light-greenish drab to a drab shaded with buff. They are thickly freckled with small rounded spots of reddish brown and dark chestnut. —*Baird, Brewer and Ridgway.*

## SHARP-TAILED GROUSE.

Pediœcetes phasianellus, Var, phasianellus.—Elliot.

HABITS.—The Arctic form of the Sharp-tailed Grouse is found throughout the Arctic regions, from Alaska southward and eastward to an extent not fully ascertained. Mr. Dall states that this variety is not uncommen at Fort Yukon, where Mr. Lockhart found it breeding and obtained its eggs. It has also been seen some two huudred miles down the river, but it is said not to be found below the canon known as the Ramparts. Captain Ketchum, in his adventurous winter trip from Nulato to Fort Yukon, is said to have killed several of these birds. Specimens are in the Smithsonian Museum from Moose Factory and elsewhere along the southern part of Hudson's Bay, and it is said to be abundant about Nipigon Lake, north of Lake Superior.

Mr. Kennicott found the nest of this bird at Fort Yukon, at the foot of a clump of dwarf willows. It was in dry ground, and in a region in which these willows abounded and were quite thickly interspersed with other trees, especially small spruces, but no large growth. The nest is said to have been similar to that of *Cupidonia cupido*. Mr. Lockhart also found it breeding in the same region. The nests seen by him were likewise built on a rising ground under a few small willows.

Richardson assigns as the northern limit of this species the region of the Great Slave Lake, latitude 61°, and as its most southern point latitude 41°. It was found in abundance on the outskirts of the Saskatchewan plains, and throughout the wooded districts of the fur countries, frequenting the open glades or low thickets on the borders

of lakes, especially where the forests have been partially cleared; perching on trees in the winter, but keeping to the ground in summer; and, at all seasons, met with in small flocks of from ten to sixteen. They are said, early in spring, to select some level place, where a covey meets every morning and runs round in a circle of about twenty feet in diameter, so that the grass is worn quite bare. If any one approaches this circle, the birds squat close to the ground; but if not alarmed by a too near approach, they soon stretch out their necks to survey the intruder, and resume their circular course, some running to the right and others to the left, meeting and crossing each other. These "partridge-dances" are said to last a month or more, or until the female begins to incubate. This Grouse rises from the ground with the usual whirring noise, and alights again at a distance of a few hundred yards, sometimes on the ground or on the branches of a tree. In winter they hide in the snow, and make their way with ease through the loose drifts, feeding on the buds of the willows, larches, aspens, etc. In summer and autumn their food is principally berries. They are said to lay about thirteen eggs early in June; the nest being on the ground, formed of grasses lined with feathers.

The eggs of this variety closely resemble those of the *columbianus*, but are generally of a decidedly darker ground. They average 1.75 inches in length by 1.28 in breadth. Their ground is a dark tawny-brown, minutely dotted with darker spots of brown.—*Baird, Brewer and Ridgway.*

## THE TEXAS PRAIRIE HEN.

Cupidonia cupido, Var, pallidicinctus.—Ridgway.

HABITS.—Southwestern Prairies (Staked Plains, Texas?) In its relations with the *C. cupido*, this race bears a direct analogy to *Pediœcetes columbianus*, as compared with *P. phasianellus* and to *Ortyx texanus*, as distinguished from *O. virginianus*. Thus in a much less development of the tarsal feathers it agrees with the southern Pediœcetes, while in paler, grayer colors, and smaller size, it is like the southwestern *Ortyx*.—*Baird, Brewer and Ridgway.*

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## THE MOUNTAIN PARTRIDGE.

Bonasa umbellus, Var, umbelloides.—Douglas.

HABITS.—In regard to the habits of this variety we have no information. It was found by Mr. Drummond among the Rocky Mountains, near the sources of the tributaries of the Saskatchewan. He states that those he met with were at least one-third smaller than the *umbellus*, had a much grayer plumage and a shorter ruffle. He regarded it as a distinct species from the common Partridge, which he also encountered in the same locality.

Mr. Ridgway met with this variety on the Wahsatch Mountains in October and during the summer. It was known in that locality as the Pine Hen, in distinction from the *T. obscurus*, which was known as the Mountain Grouse

The eggs of this variety measure 1.62 inches in length by 1.20 in breadth. Their ground-color is a deep uniform cream, darker than in the *umbellus*. They are occasionally marked with dark tints of the same.—*Baird, Brewer and Ridgway.*

## THE OREGON GROUSE.

Bonasa umbellus, Var, sabini.—Douglas.

HABITS.—The Western Ruffed Grouse was found abundant by Dr. Suckley in the timbered districts throughout Oregon and Washington Territory. Its habits seemed to be identical with those of the Eastern birds. Owing to the mildness of the season in the vicinity of Fort Steilacoom, the males commenced drumming as early as January, and in February they are heard to drum throughout the night. In the autumn they collect in great numbers in the crab apple thickets near the salt marshes at the mouths of the rivers emptying into Puget Sound. There they feed for about six weeks on the ripe fruit of the northwestern crab-apple, the *Pyrus rivularis* of Nuttall.

Dr. Cooper also speaks of this Grouse as very abundant everywhere about the borders of woods and clearings. It was common near the forests east of the Cascade Mountains up to the 49th degree. These birds vary in plumage there, a pale-grayish hue predominating. West of the mountains they are all of a very dark brown. There was, however, no perceptible difference in their habits or cries from those of the same bird elsewhere.

Mr. J. K. Lord assigns to this species an extended geographical range west of the Rocky Mountains,—from the borders of California, throughout Oregon and Washington Territory, extending high up on the slopes of the Rocky Mountains, plentiful in all the timbered lands between the Cascades and the rocky ruts along the banks of the Columbia, over the ridge of the Cascades, and down their western slopes to Frazer's River, in all the islands of the

Gulf of Georgia, and everywhere on Vancouver Island to its extreme northern end, and on the mainland as far north as latitude 53°. The habits of this Grouse are described as singularly erratic and its food as varied as its character. In the spring their favorite haunt is in the vicinity of stagnant pools, or in the brush around a marsh in which the wild swamp-crab, the black birch, and the alder grow. In such places they mate, and during the breeding-season are said to be very constant and devoted. During the time of pairing, and at intervals after their young are hatched, the male produces the sound known as drumming. The bird is said to squat on a log or a fallen tree, motionless as though it had no life. Suddenly all the feathers appear as if reversed, the tail is erected, the ruff round its neck stands out stiff and rigid, and the wings droop as if broken. These slowly vibrate, and then produce a sound loud and clear, like the thrum of a double-bass string. Then the wings move with increased rapidity, and the sound becomes a continuous throbbing hum. It then suddenly ceases, and after a few minutes the same performance is repeated.

Mr. Lord also states that he has seen the males of this species fighting furiously during the pairing season. Ruffing up their necks, with their heads and backs almost in a straight line, and with wings dropped, they circle round and round each other, striking and pecking until the vanquished gives in, and the victor mounts upon a log and proceeds to drum furiously. Their nest is completed about the end of May, and is always placed under a log on the ground, or at the foot of a bush. It is composed of a quantity of dead leaves, lined with dry grasses, bits of moss, and a few feathers.

Mr. Lord adds that he found at least ten nests of this bird in one swamp near the Spokane Prairies. From ten to fourteen eggs was about the average number; they are described as in color of a dirty white, and without any spots or freckles of a darker shade. The chickens at once leave the nest and follow their mother, who calls them with a clucking sound, in the manner of a Hen, covers

them when resting, and uses all kinds of feints and stratagems to lure an intruder from her young, fluttering along close to his feet as if her wings were entirely disabled, and then, when her chickens have had time to conceal themselves, suddenly darting off. When frightened, this Grouse rises with a loud rattling sound; but its natural upward movement is noiseless.

After the chickens are old enough, the flock removes to open hill-sides where grass-seed, berries, and insects are in abundance. This Grouse never packs, but remains in broods. In the fall, before they begin to feed on the spruce buds, their flesh is said to be delicious; but after the snow shuts them off from other food they feed on the fir buds, and then their flesh acquires a strong flavor of turpentine.

In the tree this Grouse is not an easy bird to discover; so closely does its plumage resemble the lichen-covered bark that it is difficult to distinguish them, especially as, when alarmed, they crouch down lengthwise with the limb, and thus become concealed.—*Baird, Brewer and Ridgway.*

## WILLOW GROUSE; WHITE PTARMIGAN.

Lagopus albus.—Aud.

HABITS.—Richardson regarded this species as an inhabitant of the fur countries from the 50th to the 70th parallel of latitude, being partially migratory within those limits. It was found to breed among the valleys of the Rocky Mountains, on the barren grounds, and along the Arctic coasts. On the approach of winter it collects in flocks, and retires southward as the severity of the weather increases. They remain, however, in considerable numbers as far north as latitude 67°, even in the coldest winters. It was found to be tolerably abundant at the 65th parallel all the year, assembling in vast flocks on the shores of Hudson Bay in the winter time. Mr. Hutchins states that ten thousand of these birds have been captured in a single season at Severn River. Richardson adds that in 1819 these birds made their first appearance at Cumberland House, latitude 54°, in the second week of November, and that they returned to the northward again before the beginning of spring. In the winter they are said to shelter themselves in thickets of willows and dwarf birches, on the banks of marshes and lakes, the buds of the smaller shrubs being the principal part of their food at that season. Denuded sandy spots were their favorite resorts in the day time, but they passed their nights in holes in the snow. When pursued by sportsmen or birds of prey, they often terminate their flight by hastily diving into the loose snow, working their way beneath its surface with considerable celerity. In thick, windy, or snowy weather they were very shy, perching on the taller willows, where it required a sharp eye to distinguish them

from flakes of snow. In the summer season they feed chiefly on the berries of the alpine arbutus and other shrubs and plants, which are laid bare by the thaw, and which do not disappear until they are replaced by a new crop. They incubate about the beginning of June, at which time the females moult. The males assume their red-colored plumage as soon as the rocks and eminences become bare, at which time they are in the habit of standing upon large stones, calling in a loud and croaking voice to their mates, which, still in their white wintry garb, are hidden in the snows below. These birds are more usually in motion in the milder light of night than in the broad glare of day.

Captain Blakiston traced this Grouse across the interior from Hudson Bay to near the Rocky Mountains, and obtained a single specimen near Fort Carlton. It does not come down every winter, however, so far south on the Upper Saskatchewan. Near Lake Winnipeg, at Fort Cumberland, and to the eastward, they are common every winter, and numbers are obtained from the shores of Hudson's Bay. Mr. Ross gives this species as common on the Mackenzie. Mr. Robert Mac Farlane found it around Fort Anderson, where, he writes, it was always very numerous in that quarter at all seasons, and generally not difficult of approach. During the breeding season the males were to be found perched upon trees and stumps in the vicinity of the nest, while the female would rarely leave the latter until almost trodden on. They are also said, by Mr. Mac Farlane, to assume their summer plumage earlier than the males, differing in this statement from Dr. Richardson's. Their nest is always on the ground, and consists only of a few decayed leaves placed in a depression. Sometimes other materials, such as hay, moss, feathers, etc., are found. While incubating, the female occasionally sits so close as to allow herself to be caught rather than leave the nest.

They begin to nest early in June, varying a little with the season, not commencing so soon where the ground at that period was still covered with snow. Eggs taken from

the oviduct were almost invariably pure white in color. In one instance an egg taken from the oviduct of a female, June 5, that had previously deposited eight eggs the same season, was covered with coloring matter or marking so soft as to adhere to the fingers when touched. After the female has once begun to lay, Mr. Mac Farlane observed that she deposits one egg each day until the whole number has been reached. This varies from eight to ten.

The males were always observed in the immediate vicinity of the nest, and began to assume their summer moult about the 6th of June, most of their necks at that time being already of a reddish-brown color. The nests were always on the ground, and were mere depressions lined with a few soft materials, generally leaves, occasionally mingled with feathers, hay, etc., the feathers often being their own. The same nest was often made use of in successive seasons. Eggs were found as late as the 24th of June, and the female is supposed to sit about three weeks before hatching. Occasionally eggs were found dropped on the bare ground without any signs of a nest. In one instance the egg was pure white, like one taken from the oviduct. It was found lying on the bare ground, without the least appearance of a nest in the vicinity.

In one instance where a nest was met with, on the banks of Swan River, by Mr. Mac Farlane's party, *en route*, the female was almost trodden under foot before she fluttered off, when she at once turned about to face her enemies, spreading her wings and ruffling her feathers as if to attack or frighten them away. In another case a nest containing only one fresh egg, in which the female had but just begun to deposit, was found as late as June 25th. Other eggs found June 27th, contained very large embryos. Another nest, examined a fortnight later, (July 10), had in it ten perfectly fresh eggs. Mr. Mac Farlane inferred that this nest had been robbed at an early period of the season. This time she apparently made no attempt at another laying. In several instances where both birds were present near a nest that was taken, the male bird would make

his presence known by giving utterance to very peculiar rough notes, indicative of alarm and distress at the proceedings. In one instance a nest was found in the midst of a clump of very small stunted willows, within thirty feet of the spot where Mr. Mac Farlane's tent was pitched. This was on the 21st of June, but the nest escaped notice until the 22d of July, when the female was almost trodden on as she was sitting on her eggs, where she had probably had her nest during their entire stay. The eggs were warm when taken, and their contents were slightly developed. During the night the male Ptarmigan disturbed the encampment by keeping up a constant utterance of his rough and rather unpleasant notes. In another instance the female fluttered off, calling, and pretending to be badly wounded; while the male bird, in the vicinity, made his near presence known by the loud manner in which he expressed his disapprobation of such proceedings.

In one instance where an Indian had found a nest of this Ptarmigan, which then contained seven eggs, the female was seen, and the notes of the male bird were heard. He placed a snare about the eggs, but on returning to the nest a few hours afterwards, he was surprised to find that six of the eggs had disappeared during his brief absence. He supposed a fox had taken them; but as no egg-shells were left behind, Mr. Mac Farlane has no doubt they were removed by the parent birds.

When the young are hatched they follow the parents, both of whom keep about them, and display great courage and devotion whenever there is any occasion, suffering themselves to be very closely approached, and utterly regardless of consequences in their desire to save their young. The latter are very hard to recognize, owing to their close resemblance to the grass, in which they squat, and remain perfectly still.

In September and October of each season these Ptarmigan assemble in large flocks, but during winter seldom more than two or three dozen were ever noticed in single companies. They would often alight and feed in the im-

mediate presence of the men, and would even permit a very near approach. During the winter they were frequently to be met between Fort Anderson and Fort Good Hope, in especial abundance about the last-mentioned post. As the spring approached, they began to migrate to the north; so that in the summer scarcely a Ptarmigan was to be seen south of Lockhart River, on their usual line of march to that post. In February, 1859, Mr. Mac Farlane found them numerous to the very borders of the wooded country, along the banks of the Lower Anderson.

Mr. Donald Gunn states that this Ptarmigan is very seldom to be seen south or west of Lake Winnipeg, but is found in all the country north and east of that lake during the winter season. In the summer they are said to breed around Hudson's Bay, and during the winter to be found along the whole extent of that bay, especially if the winter is mild. During severe winters they go more inland. The males of this species are said by Mr. Gunn to crow morning and evening in the same manner as the Moor-fowl in Scotland, the tone and notes being very similar. The female is said to lay from ten to sixteen eggs, but the largest number taken by Mr. Mac Farlane appears to have been ten. These birds are of great service to the Indians, serving as food when larger game fails; and their feathers are also a considerable article of trade, several hundred weight of them being annually sent to London.

Mr. Dall found this Ptarmigan abundant in Alaska, from Fort Yukon to the sea. In winter they feed exclusively on willow buds, a double handful having often been found in their crops. As soon as the ground was well covered with snow they appeared on the river in covies among the willow thickets. They were rather shy, and on an alarm they flew immediately, but without noise. They made regular paths along the banks of the river among the willows, along which they always ran. The Indians took advantage of these to snare them, and caught them by hundreds. They were abundant in the fall and midwinter. In February they gathered in immense flocks, and disap-

peared, no one could tell where, returning about the middle of March as suddenly as they had gone away, remaining a few weeks, then resorting to the mountains and open country to breed. In 1867 they disappeared February 15 and returned April 1, leaving for the mountains May 3. The following year they left February 10, returning March 21, and left for the mountains April 28, going and coming in large flocks. They begin to moult about the middle of April, the feathers of the head, edges of wings, and upper tail-coverts, changing first. At this time the capillaries in the skin of the abdomen become engorged with serous fluid, and give to the bird a disgusting appearance. Mr. Dall obtained eggs in an open tundra near the mouth of the Yukon in the latter part of June. The female defended her nest bravely, and rather than desert her eggs allowed herself to be torn to pieces by a dog.

Mr. Bannister was also struck with the strong attachment shown to each other by both sexes during the breeding season. He has known the male bird to sacrifice his own life, rather than desert his wounded mate. He mentions them as common at St. Michael's and the adjoining mainland during the greater part of the year, but especially abundant in the spring, when they are fouud singly or in pairs all over the country. In the fall and winter they kept more to the thicket of willows. The greater part of them were supposed to have gone into the wooded districts of the interior for better shelter and more abundant food.

The eggs of this species vary considerably in length and breadth, they average about 1.85 inches in length and 1.20 in breadth and are oval in shape, one end a little less obtuse than the other. They are all beautifully variegated and marked with bold confluent blotches of a dark claret color, upon a ground of a deep cream tinged with a reddish shading.—*Baird, Brewer and Ridgway.*

## ROCK PTARMIGAN.

Lagopus mutus, Var, rupestris.—Leach.

HABITS.—According to Hutchins, this Ptarmigan is numerous at the two extremes of Hudson's Bay, but does not appear at the middle settlements of York and Severn except in very severe seasons, when the Willow Grouse are scarce; and Captain Sabine informed Richardson that they abounded on Melville Island, latitude 75°, in the summer. They arrived there in their snow-white winter dress about the 12th of May. By the end of the month the females had begun to assume their colored plumage, which was completed by the first week in June, when the change in the plumage had only just commenced in the males. Some of the latter were found as late as the middle of June in their unaltered winter plumage. This Grouse was also found on the Melville peninsula and the Barren Grounds, rarely going farther south, even in the winter, than latitude 53° in the interior, but, on the coast of Hudson's Bay, descending to latitude 58°, and in severe seasons still farther to the southward. In its general manners and mode of living it is said to resemble the *albus*, but does not retire so far into the wooded country in the winter. At that season it frequents the more open woods on the borders of lakes, especially in the 65th parallel, but the bulk of this species remains on the skirts of the Barren Grounds. They incubate in June.

Mr. Mac Farlane found this species breeding about Fort Anderson, and on the Barren Grounds east of the Horton River. They nest, in a similar manner to *L. albus*, on the ground, placing the materials in a depression on the ground, and using hay, withered leaves, and a few feathers and making a rather loose, ill-arranged nest. This is

usually placed on an open common, sometimes near the banks of a small stream. They were more early in their breeding than the *albus*, as young Ptarmigans of a goodly size are mentioned as having been seen June 30. The eggs ranged from four to eight in number.

The female sits very close, and rather than leave will sometimes suffer herself to be taken by the hand. In one instance when a nest was approached, the female crouched as much as possible, in the hope that she might not be noticed, which would have happened had not one of the party observed her eye. Her summer plumage was almost exactly of the same color with the soil, and hardly distinguishable from it. The man was within three feet, and, making a swoop, caught her on the nest.

Excepting in 1862, Mr. Mac Farlane did not meet with any of this species west of the Swan River, on his various journeys to Franklin Bay. Every season, almost immediately on leaving the woods fringing Swan River, birds began to be seen as far as and all along the Arctic coast. Although constantly found feeding in large numbers on the Barrens, it was always difficult to find their nests. They were most numerous between Horton River and Franklin Bay, and were frequently seen standing singly, or feeding on the ground, or an occasional pair might be seen, but it was seldom any number were observed in company.

Mr. Dall states that this species was not uncommon in the Romanzoff Mountains, northwest of Fort Yukon, but did not know of its being found farther south or west. It was obtained by S. Weston at Fort Yukon, and among the mountains by Mr. McDougal.

The eggs of this species closely resemble those of *L. albus*, but are somewhat smaller in size. They measure 1.63 inches in length by 1.18 in breadth, varying slightly in size. Their ground is a deep reddish cream-color, nearly covered by large blotches of a reddish chestnut, giving a beautifully variegated effect to the whole.—*Baird, Brewer and Ridgway.*

## WHITE-TAILED PTARMIGAN.

Lagopus leucurus.—SWAINSON & RICHARDSON.

HABITS.—This species was first procured by Mr. Drummond, and described by Swainson in the "Fauna Borealis." Five specimens were taken on the Rocky Mountains in the 54th parallel, and another, by Mr. Mac Pherson, on the same chain, nine degrees farther north. They were said to have all the habits of the other Ptarmigans, and to inhabit the snowy peaks near the mouth of the Columbia, as well as the lofty ridges of the Rocky Mountains.

We have but little reliable information in regard to the habits and distribution of this species. It seems to be confined entirely to the range of the Rocky Mountains, and to be found only among their highest points, occurring at least as far to the south as Cochetope Pass, in latitude 39°, and extending north to an undetermined extent. Specimens were procured in 1858 by Captain R. B. Marcy, on his march from Fort Bridger, in Utah, across the Rocky Mountains to Santa Fe. They were met with near the summit of the mountains not far from Cochetope Pass.

Mr. Charles E. Aiken writes me that he has been informed that this bird is common on the Snowy Range, in Colorado Territory. He was informed by an old miner, who claimed to have met with these birds breeding near the top of the range in June, that their nest, composed of leaves and grass, is placed on the ground among bushes on hill sides; that the eggs are fourteen in number, of a light bluish-brown, marked and spotted with a darker shade of brown.

Mr. J. A. Allen (Am. Nat., June, 1872), mentions finding, among the snow-fields of the higher parts of the mountains of Colorado, this Grouse as one of the essentially Arctic species that were not met with below the region of

snow. The Ptarmigans were quite common, and in the winter descend into the timbered land, where a great number are killed by the miners for food.

An egg given to Mr. Allen as a genuine egg of this species, was taken on Mount Lincoln, Colorado, by Mr. Arthur Meade. It is of an oblong-oval shape, and measures, as well as its imperfect condition permitted its length to be estimated, about 1.80 inches by 1.20 in breadth. Its ground is a deep ochraceous cream color, marked with small rounded spots of a deep chestnut. These are pretty uniformly sprinkled over the surface. Except in size, it bears a close resemblance to the egg of the European *Tetrao urogallus.—Baird, Brewer and Ridgway.*

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## RUFFED GROUSE; PARTRIDGE; PHEASANT.

Bonasa Umbellus, Var, Umbellus.—STEPHENS.

GEN. CHAR.—Tail widening to the end, its feathers very broad, as long as the wings; the feathers soft, and eighteen in number. Tarsi naked in the lower half; covered with two rows of hexagonal scales anteriorly, as in the (*Ortyginæ.*) Sides of toes strongly pectinated. Naked space on the side of throat covered by a tuft of broad soft feathers. Portion of culman between the nasal fossæ about one-third the total length. Top of head with a soft crest.

"This genus, in its partly naked tarsi, with two rows of scutellæ anteriorly, indicates a close approach to the American Partridges, or Quails. It has a single European representative, the B. *sylvestris.*"—*Steph.*

*B. Umbellus.*—Rump with cordate light spots; sides with transverse dark spots. Tail with two gray bands (one terminal), with a broad blackish zone between them. Cervical tufts glossy black or dark brown, with a semi-metallic steel-blue or green border. Prevailing color bright ochraceous-rufous; tail always rufous in the Middle and

Southern States, occasionally gray on the Allegany Mountains, and in New England States; usually gray in Eastern British America.

HAB.—Eastern Province of North America. Var, *umbellus.—Baird, Brewer and Ridgway, Vol. III., page* 446, 447.

DESCRIPTION.—The Pheasant, from the tip of the bill to the end of the tail feathers, sixteen to nineteen inches long. From tip to tip of the outstretched wings, twenty-four inches. Length of wing, seven inches. Bill of a brownish color, eyes hazel, crested head. Neck variegated with white, yellow, black and brown. A tuft of twenty to thirty broad, soft, black, glossy feathers covers a small impennous, and otherwise naked space on each side of the neck. Upper parts of the body, rust color, marked with spots of light yellowish gray. Lower parts of the body white, with splotches of brown. The tail generally seven inches in length, usually of eighteen feathers, rounding and of a rufous brown color, marked with a broad, blackish zone between two narrow bands of light gray, one of which terminates the tail. Tarsi naked in the lower half, covered with scales. Feet grayish, sides of the toes pectinated, two exterior ones joined at the base, and to the first joint with a strong membrane. Weight 1 lb. 6 to 13 oz. Flesh white. The plumage of the *female* is similar to the male, but of a lighter shade. The neck tufts of the female are of a brownish color. The zone on the tail is not as dark as that of the male. The above description was accurately taken, from birds fresh killed by myself, in the Hills and Mountains, of Frederick county, Maryland.

[SEE ENGRAVING.]

HABITS.—This beautiful game bird is known in New England as the Partridge, in the Southern and Middle States as the Pheasant. Neither of these names is its proper one, for this bird belongs to neither the Partridge nor the Pheasant families. The true name of this bird is

AMERICAN RUFFED GROUSE.

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HAB.—Eastern Province of North America. Var. *ambellus*—*Baird, Brewer and Ridgway, Vol. III., page* 446, 447.

DESCRIPTION.—The Pheasant, from the tip of the bill to the end of the tail feathers, sixteen to nineteen inches long. From tip to tip of the outstretched wings, twenty-four inches. Length of wing, seven inches. Bill of a brownish color, eyes hazel, crested head. Neck variegated with white, yellow, black and brown. A tuft of twenty to thirty broad, soft, black, glossy feathers covers a small impression, and otherwise naked space on each side of the neck. Upper parts of the body, rust color, marked with spots of light yellowish gray. Lower parts of the body white with splotches of brown. The tail generally seven inches in length, usually of eighteen feathers, rounding, and of a rufous brown color, marked with a broad, blackish zone between two narrow bands of light gray, one of which terminates the tail. Tarsi naked in the lower half, covered with scales. Feet grayish, sides of the toes pectinated, two exterior ones joined at the base, and to the first joint with a strong membrane. Weight 1 lb. 6 to 13 oz. Flesh white. The pheasant of the female is similar to the male, but of a lighter shade. The neck tufts of the female are of a brownish color. The zone on the tail is not as dark as that of the male. The above description was accurately taken, from birds fresh killed by myself, in the Hills and Mountains, of Frederick county, Maryland.

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AMERICAN RUFFED GROUSE.

the American Ruffed Grouse. It derives its name from a peculiar tuft of numerous (twenty to thirty) broad, soft, glossy, black feathers, on the sides of the neck, which it sometimes raises as a ruff. As this bird is known so generally in Maryland as the Pheasant, and by no other name, I will call it the Pheasant, because many of our sportsmen would not know the bird by its true name Grouse. The Pheasant is found wherever wooded country is met with, throughout the Eastern portion of North America, from the Atlantic Coast to the Rocky Mountains, and from Georgia to Nova Scotia. They also often occur in considerable numbers in the low lands, and were discovered by by Mr. Audubon, breeding in the thickest canebrakes of Indiana and Kentucky. They are found in nearly all the Southern States, being abundant in Virginia, the Carolinas, Tennessee, Kentucky, and it is said as far to the Southwest as Natchez, Mississippi. Dr. Newberry, as has been stated, did not encounter this bird within the limits of California, but found them very abundant in the wooded portion of the Cascade Mountains, and in the Willamette Valley. The Oregon species were generally darker than the Eastern varieties, but the habits were apparently everywhere the same. The Pheasant is generally found in small flocks, except where they have been much hunted. When this is the case, they are more frequently found singly, or rarely more than two to five together. These game birds have their homes in the woods, mountains, and hills of our country. They delight in the rocky sides of mountains and hills where springs and small running streams abound. They are particularly fond of high, sloping, rocky, wooded hill-sides, which border on such streams, especially those which are sheltered by the pine, hemlock, laurel, and other evergreens. They always prefer the densest woods and thickets, and are but seldom found in open plains. They love to frequent ravines and thickets, especially those which extend out from the mountains and hills. These places are their favorite feeding grounds. The Pheasant is more or less polygamous. Their love season commences in

March. The male only remains with the female until the latter commences setting. They then keep by themselves unless recalled by the female, when its eggs have been destroyed. Pheasants have been taken young and tamed, and their eggs have been hatched under the Domestic Hen, but they seldom live until full grown. The nest is very rudely constructed, consisting of only a few leaves laid in a depression. The female places her nest on the ground in some retired spot, frequently at the foot of a stump, bush, tree, or log. The hen generally lays from six to twelve eggs, of a yellowish color, and of an elongated oval, pointed at one end. The young brood, as soon as they are free from the shell, follow their mother in search of food. She calls to them with a chuckling note, and when come upon by a sportsman the young birds hide, and the hen resorts to the same artifice as the Partridge (*Ortyx*) does to allure the sportsman away from her young. In a short time the young birds become strong enough to fly a short distance. The cocks do not assist the hen in taking care of the young brood—they scatter around singly, and frequently get together in small bands until Fall, when they all again associate indiscriminately together in search of food, both young and old. If the Spring is early, warm, and dry, the young birds will be large enough to shoot by the 15th of August, but if the Spring is late, and cold, and wet, the brood will be small both in number and size of the birds. I have shot birds of the young broods in Maryland and Virginia, on the first day of August, that were apparently as large as the old birds; and then again the next year, on the first of the same month, I have sprung them when they were not much larger than a Partridge, which was owing altogether to a difference in the season. Take the seasons on an average, the first of September is the proper time to commence shooting the young broods. About the first of September, as a general thing, the young birds are equal in size, but not in weight, to the old ones; and though they have not the power and rapidity of flight of the old birds, I have always found that by the first of September

the young birds could fly plenty fast enough to elude any but well-practiced sportsmen. As the trees and bushes are full of leaves in places where they are found, and they get under way and out of sight in a wonderful short space of time, unless the gun is handled and leveled quickly, and the sight is taken true by a good shooter, they will not be stopped. No. 6 St. Louis shot is the size to bring them down. With any smaller size of shot you will often be disappointed in bagging them if you fire at any distance over thirty-five yards, even though your aim is true.

## BEATING OR DRUMMING OF THE PHEASANT.

"Hearest thou that bird?
I list'ned, and from 'midst the depths of woods
Heard the signal of the Grouse,
A sound like distant thunder;
Slow the strokes at first, then faster and faster,
'Till at length they passed into a murmur and were still."

BRYANT.

IN some of our districts, the woods, mountains, and hills of our country resound far and wide with the sound of the beating or drumming of the Pheasant. This sound is a very singular noise. It is a kind of rumbling sound, or a tremor in the air, very much like the rumbling of distant thunder. When this sound vibrates from hill to hill, it is a difficult matter to locate the exact spot from whence it comes. This rumbling sound is called beating or drumming of the Pheasant, and on a clear, still day, may be heard a long distance off. This peculiar sound is made by the beating or drumming of the Cock Pheasant, as has been described by Mr. Audubon, in this way.

"The male bird, standing erect on a prostrate decayed trunk, raises the feathers of its body in the manner of the Turkey Cock, draws its head towards its tail, erecting the feathers of the latter at the same time, and raising its ruff around the neck, suffers its wings to drop, and struts about on the log, a few moments elapse when the bird draws the whole of its feathers close to its body, and stretching itself out, beats its sides with its wings in the manner of the Domestic Cock, but more loudly, and with such rapidity of motion, after a few of the first strokes, as to cause a tremor in the air not unlike the rumbling of distant thunder."

I have many times detected this bird by this peculiar sound, and shot him, but it always required my greatest skill of observance to distinguish his exact location, as this rumbling sound in the woods and hills is very deceiving. Toiling, I have often climbed to the top of a rugged mountain, under the impression the sound came from that direction, all the while keeping a sharp lookout in the advance, and proceeding cautiously with my finger upon the trigger of my gun, for, by the repeated thumping, I would think I was close on the bird, but I have been too often mistaken. After all my trouble, it would frequently turn out, when I had thought I was right, that the rumbling sound proceeded from the hill opposite the one I was on, or some other neighboring locality. This beating or drumming of the Cock Pheasant is a very singular manœuvre, and why this bird resorts to this peculiar performance, and makes this sound, is left only for us to conjecture. Some suppose that the male bird resorts to this means to draw the hen to his presence; others suppose that this peculiar noise is the male bird's only plan of drawing the hen from her hiding place during the period of incubation; others suppose that this sound is produced by the bird when he is in search of worms in a log. From my observation of the beating or drumming of the Pheasant, I am compelled to reject the reasons which have been assigned for it. I am unable to attribute it to any special cause, and I have concluded that it is altogether a natural habit for the bird to perform this singular manœuvre. I have shot Pheasants, when they were beating or drumming, in all the months of Autumn; and I have heard them drum in the night, and in all the months of the year, except when the weather was cold, or when the ground was covered with snow. The drumming by the male is frequently made on a rock, stump, or stone, as well as on a log. The drumming place of the male: This spot is situated in their haunts—in places where they live. Around in the localities of these points, they may be found in all seasons of the year.

## FLIGHT OF THE PHEASANT.

THE Pheasant is a strong and powerful bird on the wing—there are few birds that can equal them in rapidity of flight. On being disturbed the Pheasant rises from the ground with strong wing, and tremendous whirring noise, and flies off with the greatest ease, and with wonderful rapidity, through the thickest woods. There is much variation in the flight of Pheasants—sometimes they will mount almost perpendicularly into the air before flying off; at others they will rise and fly off just above the laurels or along within four or five feet of the ground; at others they will rise and fly, skimming along close to the ground, then slyly disappearing from view. Pheasants generally fly straight off in a bee-line, but before settling they usually take a turn to the right or left, sweep around and alight. The flight of Pheasants varies greatly in regard to distance. During the first of the shooting season, when the birds are young and tame, and the trees and bushes are full of leaves, the flight of Pheasants is about equal in distance to that of the Partridge (*Ortyx*); but as the season advances and the trees become leafless, their flight is much longer, particularly if they have been much disturbed; should this be the case, they spring in greater terror, and usually fly out of sight before they alight. Pheasants generally fly with the wind, and when the wind is blowing a gale, they fly like a streak of lightning, especially the old ones, and in order to bring them down, the shooter must be alert and quick in handling the gun, or they will not be stopped—they will soon get out of sight, or killing range of the shot. Their movements are very quick when they spring, and in a gale, unless the shooter has a keen, quick eye, they will fly twenty feet be-

fore he gets a glimpse of them. The startling noise and flutter that a Pheasant makes, when springing from the ground, is very apt to shake the shooter's nerves, or throw him off his guard, and by this means, as much as any other, the bird escapes being bagged. I have seen Pheasants spring at the feet of sportsmen and fly off and escape without being fired at, "offering a beautiful mark, too." The sudden spring, accompanied by the startling whirr and flutter, would throw the shooter off his guard, and the bird would fly away and escape with impunity, while the shooter would stand and gaze with astonishment at the unexpected and lightning flight of the bird. A full-grown Pheasant, late in the season, flies at the rate of ninety miles an hour, at least—that is, twenty-six hundred and forty yards a minute, or forty-four yards in a second, and in a breeze the bird will fly one-third swifter. If, therefore, a Pheasant springs at your feet at this velocity, and you require one second to bring the sight to bear upon him, he will be out of ordinary range, and the chances are three out of four against the bird being stopped. If it is flying across, and you dwell one second on the aim, the chances are three out of four you will miss him. If it springs at your feet and flies off in your rear, and you lose one second in turning and getting aim, there are three chances out of four the bird will not be bagged. If it springs ten yards in advance, and flies straight off, and you require three-fourths of a second to pitch the gun to the shoulder, and draw a bead on him, the chances are three out of four the bird will go freely on and escape unharmed. If it darts down the moment after being fired at, and flies and skims along close to the ground, and your dog pursues it close and hotly, there are three chances out of four it will mount and light upon a tree, and unless you are very careful, understand your business, and have a sharp eye, there are fifty chances to one he will escape your notice and evade being bagged. When brought down among thick laurel growth only wing tipped, unless you have a smart, swift dog to give chase, or fire upon him with the second barrel

and stop him, there are a hundred chances to one he will outrun you and escape. It frequently occurs that when you come upon them suddenly, that they will squat and lie close, until you stop or have passed by, when they will whirr up, and fly off like lightning to the densest part of the cover. When the snow is soft, deep, and drifted, Pheasants, when they are hard pursued, will occasionally fly right into it, and get covered up, or pitch into it and come out again, a short distance in advance, and in this way frequently escape pursuit. When a brood of Pheasants are dispersed they have no call to reassemble them together again—they wait until chance brings them together, which it generally does, at their haunts, or feeding grounds, or places where they go to scratch or drink.

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## MIGRATION.

PHEASANTS do not migrate, but like the Partridge, (*Ortyx*), shift their quarters on the approach of Winter to thicker cover. The distance is not extensive nor general. Pheasants will stray some distance from the woods, let the cover and food be ever so good. Rarely I have found them two or three miles from the woods in open fields, and shot them. Then again I have come across single Pheasants in the open fields, among covies of Partridges, at least four miles distant from any woods or thickets. I recollect once, while Partridge shooting in company with Thomas W. Morgan and Major B. H. Schley, in Frederick county, Maryland, of com ng across a single Pheasant among a covey of Partridges in the open field, some three miles distant, apparently, from any woods or thickets, and we drove the bird at least two miles through the open country, before we brought it to bag. It

would always rise and fly before we got in killing range of it. Then again, I recollect once, while Partridge shooting, of springing a single Pheasant out in the open field near the Monocacy River. The nearest wood to this point was on the Linganore Hills, about two miles distant. The bird escaped from me by flying across the river. One month afterward I traced this same bird, by sportsmen springing it from place to place, and from time to time, through Frederick Valley, until the bird was driven to the Catoctin Mountains, about six miles distant. These birds had strayed from the woods and lost their way and did not know which course to pursue in order to return.

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## FOES OF THE PHEASANT.

THE Pheasant has many foes to contend with, independent of man, that continually haunt and lurk in their wake: The red and gray Fox; the roving, rambling Mink, travelling its rounds in the darkness of night; the industrious, enterprising little Weasel, searching every nook, hole and corner for its prey; the fidgity Raccoon, with his acute sense of smell; the quiet, sneaking Polecat; these animals all prey upon the Pheasant whenever an opportunity offers, and they destroy a large number of these birds, both young and old. There are several species of birds which also prey upon the Pheasant, and attack them whenever a favorable chance is presented. The large Chicken Hawk carries off the strongest and oldest birds. The Pigeon Hawk, (*Falco columbarius*), this quick-flighted, daring guerilla preys upon the Pheasant, and there is no animal or bird whose attack is more fatal, than that of this quick-flighted assassin. The American Crow is a great foe of the Pheasant. This nest robber de-

stroys a large number of birds when they are quite young or on first being hatched, and it takes every opportunity to pilfer the eggs from the nest of the laying and setting hen.

## FOOD OF THE PHEASANT.

THEIR food consists of berries, seeds, grain, and insects. In Summer their principal food is grosshoppers, ants, ant-eggs, wild strawberries, dewberries, blackberries, raspberries, and whortleberries; later in the season and in the Fall, dogwoodberries, sassafrasberries, gumberries, the different species of wild grapes; later in the Fall, and in the Winter, their principal food is chicken grapes, blackhaws, persimmons, greenbriarberries, sumacberries, and different kinds of seed; also, nuts, acorns, and beach nuts, wheat, corn, apple seeds, &c.

In extreme Winter, towards Spring, when the ground is covered by a deep snow, and they can find no more food hanging upon the vines and branches to subsist upon, when they are forced by hunger and starvation, they feed upon the buds and leaves of the mountain laurel, (*Kalmia Latifolia*), which is said to impart a poisonous character to the flesh. Instances of poisoning have been known to occur from eating Pheasants, when laurel leaves have been found in their crops. As for myself, I have never experienced any inconvenience after having partaken of the flesh, but there is good authority for these charges, some of which I will quote:

"This well known evergreen inhabits all sections of the United States, being especially abundant on the sides of hills and mountains. It is from three to ten feet in height. The leaves are possessed of poisonous narcotic properties. They have been analysed by Mr. Charles Bullock, of Philadelphia, and found to contain gum, tannic acid, resin, chlorophyll, fatty matter, a substance resembling mannite, an acrid principle, wax, extractive albumen, yellow coloring matter, lignin, and salts of potassa, lime, and iron."—*American Journal of Pharmacy, XX.*, 264.

"Dr. N. Shoemaker published, in the *North American Medical and Surgical Journal*, two cases of poisoning which resulted from eating a Pheasant, in the craw of which laurel leaves were found. The symptoms were nausea, temporary blindness, pain in the head, dyspnœa, pallid countenance, cold extremities, and a very feeble pulse. In both cases relief was afforded by vomiting, produced by a tablespoonful of flour of mustard mixed with warm water.

A case of similar poisoning is related in the *Edinburgh Medical Journal*, (*May*, 1856, *page* 1014), *Wood & Bache, U. S. D.*

Pheasants feed by moonlight as well as by day. They roost on the ground. They can see in the night and can fly then, as well as by day. They roost just where sleep overtakes them.

I have frightened them up at all hours of the night. On approaching them they would become alarmed and fly as readily as they would in the day. I have frequently seen it stated that when a number of Pheasants are in the same tree feeding, several may be killed if you are careful to shoot the lowest one each time. I have never found this to be the case. In their native haunts, where I have pursued them, I have frequently found Pheasants, in dogwood trees, feeding on the berries. I have found them in gum, and haw trees, and also in grape vines, and when I had the luck to find more than one in a tree, I was always careful enough to kill the lowest one first, but not in one instance did I ever succeed in getting more than one shot at them in the same tree; at the report of the gun the upper ones would spread their wings and speed away swift as bullets.

## AUTUMN PHEASANT SHOOTING.

"It is brilliant Autumn time, the most brilliant time of all,
When the gorgeous woods are gleaming ere the leaves begin to fall;
When the maple boughs are crimson, and the hickory shines like gold,
When the noons are sultry hot, and the nights are frosty cold;

When the country has no green but the sword-grass by the rill,
And the willows in the valley, and the pine upon the hill;
When the pippin leaves the bough, and the sumach's fruit is red,
And the Quail is piping loud from the buckwheat where he fed;

When the sky is blue as steel, and the river clear as glass,
When the mist is on the mountain, and the network on the grass;
When the harvests all are housed and the farmer's work is done,
And the woodland is resounding with the spaniels and the gun."

ANON.

OF all the sports with dog and gun there are but few in which nature presents such charms, beauty and scenery, to an observant sportsman, as the sport of Pheasant shooting in Autumn, in America. Among mountains, hills, ravines, rocky rifts, and secluded woodland dells, amidst moss-covered rocky hillsides, where mountain springs, and small running streams abound, sheltered by the boughs of pine, hemlock, laurel, and other evergreens, amidst woodland foliage, rich and ripe, with every tint of Autumn shade and color, among mountain rills, streams, and brooks, and waterfalls clear as crystal, among these native haunts of the Pheasant, nature reveals her sweetest charms, and most beautiful scenery. Here in Autumn she revels in her most luxurious garb, and mocks the feeble efforts of the Poet's pen, the Painter's eye, and Artist's pencil to portray her inimitable splendor. Among such landscapes the true sportsman will conduct you with dog and gun, without a thought, for this is the place, as a

rule, where the home, haunts and habits of these wild, watchful, secluded, mountain birds are found. These game birds are brought to bag in various ways—they are taken in traps, in nooses and snares, and, when on the wing, with dog and gun.

To be successful in shooting Pheasants on the wing, it requires great skill and excellence in handling the gun; at the same time there is no sport that so much depends on the perfect coolness, and quick action of the sportsman, as Pheasant shooting, and I am not aware of any other sport in which the nerves of the sportsman are more fully tested, than in this delightful recreation. Pheasants require careful watching to mark them down. You must eye them very closely in their line of flight, and when you lose sight of them through the cover, or in the distance, keep your eye on their line of flight, and far in advance; they very often show themselves when coming down, by a motion of their wings, or in some other way, long after you have lost sight of them. Our Pheasants are found usually in the most dense covers, and the dog that is best adapted to their pursuit is a well-broken, easily controlled, diligent and steady Pointer or Setter. I have no preference for the Pointer over the Setter for this sport, when either possesses the following qualities. He should have a good nose, and should stand firm, and should carry his head well up, and when the weather is calm, or going either with or against the wind, he should scent his game from twenty to forty yards distance, and draw upon the scent slowly with cat-like caution, and have judgment enough to be content to stand before flushing up his game, fast and firm upon the scent, with head high, and tail stiff, from ten to twenty yards from his game, as these wild birds will not always lie to allow a much closer point. With a Pointer or Setter with these qualities, and these alone, will Pheasants, over dogs, be successfully shot. The Pheasant, when frightened from the ground, offers the best and fairest mark to be killed, when they mount up into the air before getting headway on the wing. Flying around or across they offer a fair

chance to be killed, as the shot hits with full force, and one or two pellets will stop them. Flying straight forward they offer a bad chance to be killed, and you must draw upon them very quick, or they will be out of range, and they must be hit hard to be brought down. With a dog that you can depend upon, and it is best to have with you a companion, go into the woods where you know Pheasants abound, hunt out the ravines and gullies, and the thickets which extend out from, and along the edges of the woods, hunt regularly the sides of the hills, especially if they are rocky and grown up with bushes and laurel, look well to the ground where grapevines abound, especially if there are grapes hanging on the vines. If possible, hunt the dog so he will have the benefit of the wind in his favor, as he will scent his game much farther when the wind is in his favor, than he would otherwise. When your dog trails or scents a Pheasant and comes to a stand, and you can depend upon him standing to his point, make no noise, speak not a word, and if the ground will admit of it, make a circuit to the right and left of the dog, slowly and cautiously upon the bird, so you will encircle him between your friend, dog, and yourself. When come upon in this way and flushed, he will mount up into the air and fly off, and will offer a beautiful mark. Now, if you are a good shot, and you are quick in handling your gun, and are careful not to let your nerves get in a flutter, but take the bird *quick*, before it gets too well on the wing, it will be yours. Should the lay of the ground be of such a character that it would not admit of your making a circuit to the right, and left of the dog, to encircle the bird, other tactics should be used—advance slowly and cautiously behind the dog, to within six or eight feet of him; on coming up to this spot let your companion stop and stand fast, you make a circuit around to the right or left to one side, and a little in advance, as the nature of the ground will admit; the advantage is that when the bird is flushed, whatever direction it should happen to take, it will be impossible for it to fly off and escape, without offering a fair chance to be killed, by

exposing its vital parts to a cross or side shot, from one or the other of you. Remember, these stragetic movements should never be attempted, except over well broken, staunch dogs. When Pheasant shooting with dogs of such a character that you cannot depend upon them to stand firm upon their game, the best plan to pursue to be successful, is to mark the birds down, keep your dogs behind you, and walk the birds up. In this way, when your dogs start a Pheasant, watch the bird in its flight, mark the course it has taken, call your dogs in and keep them behind you, and follow on the bird's line of flight the course it has taken, and when you have gone far enough, or close to the place where you thought it settled, step off right or left from this line twenty or thirty feet, turn squarely to the right or left, have your finger upon the trigger, and keep a sharp lookout, taking a direct course running with your first line; when you have reached your limit of distance that you supposed the bird to lie, turn to the right or left from twenty to thirty feet, according to the thickness of the cover, and take a course backwards parallel to your first line. So continue on in this way until you have been over, in parallel lines, all the ground that is likely to contain your bird. Should you fail to get the bird up, let your dogs out, hunt them close around and in your sight, give them plenty of time and they will be apt to find it. Should it get up too far in advance, or escape by plunging into thick cover, which it is almost sure to do, don't get in a rage or curse your luck, or get discouraged, but take it coolly, call your dogs in and keep them behind you, and follow on after the bird as before. Stick to him, for the oftener it is driven up, the more chances you will have of bagging it. After being driven up several times in succession, it will lose its courage, and lie closer, and become tamer and tamer, and less capable to evade pursuit, and finally will offer you an excellent opportunity to bag it, by rising close at your feet. A Pheasant generally flies straight off in a bee line, but before settling he usually turns to the right or left and sweeps around and alights, and by this trick he is apt to

mislead you, and escape being found, which frequently saves his life. By following the rules I have given, and persevering in them, if you are a good, quick shot, not one Pheasant in a hundred will miss your bag.

## SHOOTING IN WOODS AND THICKETS.

Fast flying shots and running game
Shoot without closing either eye to aim.
SCHLEY.

THE gun for shooting in the woods and thickets should be a short barrel, No. 12, 13, or 14 guage. The length of the barrel should not be more than twenty-nine inches. A short barrel gun of this description can be handled very easily, and quickly, among the bushes, whereas a longer barrel would baulk the shooter by catching against the branches of trees and brush wood. To be successful in shooting in the woods and thickets, the sportsman should take advantage of all and every chance, that offers a chance to be hit. Never refuse a fair chance, under the hope of getting a better one—shoot if it is only where you expect a bird, or animal to appear, or close to where one has disappeared. By practicing this kind of shooting in the woods and thickets, if you have a keen, quick eye, and quick action, you will acquire the art of killing birds and animals, even after they have passed entirely from your sight, behind the thickest foliage, and you will get the knack of pitching the gun to your shoulder and stopping your bird, or animal, in the thickest woods or thicket, at the moment you hear the sound of their feet, or the flap of their wings, without knowing how you shot them or whether you saw them at all when you fired. If your dog points a Pheasant, Woodcock, Partridge, or the like, into brushwood, briars or laurels, and you are close on the game, kick the brushwood with your foot, tap the briars, laurels and the like with the point of the gun. If the game springs and darts off though the bushes, or hanging branches, and you

lose sight of it, be quick in shooting. Pitch the gun up, and at the instant the butt of the gun touches the shoulder, draw the trigger and fire, shoot in the line the game is going, never mind the bushes, branches, and leaves, the shot will pass through them. If your eye takes the line of flight correctly, you will bag your game, the shot will riddle the bushes and splinter the branches, and bring down twigs and leaves, and if you hear a sound, as if something struck or fluttered, or a rustle of the leaves, or see floating feathers, you can be sure you have bagged your game. When shooting in woods and thickets, always take advantage of the open places. Place yourself in a good position, so you will have plenty of room to handle yourself, and free scope for firing. Do not place yourself in high briars, or close running vines, and get tied up, or under overhanging bushes, or under low hanging branches. The art of knowing how and where to place yourself to get a fair shot in thick covert, is one of the secrets of success in filling the game bag. When rabbit shooting in woods or thickets, have plenty of dogs, the more the merrier. When the dogs bounce a rabbit, do not follow the dogs, but place yourself in a clear space of ground or path, and there stand perfectly still, have your gun in hand and be ready, keep your tongue quiet, and your ears open, and look sharp, and you will have a far better chance of bagging it, than by running around and about with the dogs. If any kind of game is approaching you, and you are in cover and the game is near at hand, and you are standing erect, remain so and be perfectly motionless, do not move a muscle, the game will not be apt to notice you if your dress is suitable to the cover, but if you move or attempt to dodge or hide, they will catch sight of you by the least movement, and on doing so you will lose your chance. When shooting along hillsides, and steep precipices, and narrow ridges, or sloping banks, which are grown up with wood—walk always along the lower side of the rise—you will get a better range of the ground than by walking along the upper side of the rise. When shooting in woods or thickets, always advance upon

the game from below, and drive them up hill, and you will have a better chance of shooting them, and marking them, than by advancing upon them down hill. When shooting in a long, narrow strip of wood or thicket for Pheasants, Partridges, Woodcock, Rabbits, or the like, and you have a companion, one should walk on each side and outside of the cover. The dogs should go inside. You should keep in line and in sight of each other. If one fires both must stop and stand still. Make the dogs do the same. When the gun is reloaded, go and pick up the game and bag it, after which go on as before. On coming up to the end of the thicket, or woods, and you have reason to think the dogs missed a Rabbit or a Pheasant, or the like, try it again, go back on your tracks slowly, and give the dogs plenty of time. When shooting in a wood, or thicket, with a companion, keep in line of each other and in sight. Be always on your guard, and always ready to fire, but at the same time you should be cautious and watchful how you handle your gun and how you shoot, for when you least expect you may accidentally shoot yourself or friend. When still shooting in the woods or thickets for game, keep a sharp lookout, not only for the game, but for anything uncommon among the surrounding objects that strikes your attention. Walk along noiselessly, in the most open places, select out the softest places, avoid loose stones and brushwood, or anything that will betray your steps. Do not leave a hole or nook unsearched by your glance. Notice the waving of one branch in particular, when all others are quiet, the slightest rustle of the leaves, the disturbed surface of a pool, the fresh breakage of a branch, the falling of a green leaf, or an upturned dead one, everything must be noticed, even from the faintest sound, to an alarmed chatter of a bird. Nothing should be passed unheeded by the sportsman if he wishes to fill his game bag.

## SPORTING DOGS.

THE best sport with the gun and the highest enjoyment of Partridge and Pheasant shooting are with good dogs. A full treatise on sporting dogs must not be looked for within the limits of such a book as this; at the utmost a few hints and instructions only can be afforded. For the most general and useful information regarding sporting dogs, I beg to refer the reader to the "American Kennel, and Sporting Field," by Arnold Burges. This valuable work contains all that is requisite for a sportsman to know in reference to these highly interesting animals, and a copy of this beautiful and instructive volume should be found in every sportsman's library. On sporting dogs Mr. Burges is what Baird, Brewer, and Ridgway, are on birds, and his opinions are entitled to the like respect. Hear now what Arnold Burges says on the subject:

"Just when the dog was domesticated and made the companion and servant of man is a question which cannot be answered. The early history of his race is wrapped in the obscurity of a far distant past. From Holy Writ we gather proofs of his presence in the tents of the Israelites, while the historian speaks of him as a retainer in the households of the ancient Greeks and Romans. In the British Museum there is a *bas relief* exhumed from the ruins of Nineveh which represents the dog as taking part in the chase, and relics of later days from Pompeii present him in all the familiar relations which he bears at the present day.

It is certain, then, that for many ages the dog has been associated with man, following his fortunes, and rendering him faithful and loving service. Confined to no particular

division of the globe, but essentially cosmopolitan, he exists wherever man dwells, and relatively keeps pace with his master in development of intelligence and the higher attributes of his nature. It is very reasonable to suppose that the dog, like many other species of animals, was divided into different families, according to the localities in which he dwelt, and the influence to which he was subjected.

The best of modern writers, among whom I may mention "Stonehenge," Laverack, and "Idstone," all say that the Setter is a *direct* descendant of the Land Spaniel, and speak of a "Setting Spaniel" as the first Setter. There is no doubt that this is a correct theory, and that our Setter is a pure, unadulterated, but improved, Spaniel. "Stonehenge" says: "A Duke of Northumberland trained one to set birds in 1555, and shortly after the Setter was produced." It must be borne in mind that the "Setting Spaniel" was a very different dog from the Spaniel of the present time, which does not as a rule, and never has displayed, a faculty for setting or pointing game. The old Setting Spaniel has lost his identity by merging it in his descendant, the Setter; in fact, this Spaniel may be said to have become extinct by the breeding of an improved animal. "Idstone," in his work on the dog, says: "The English Setter was known in England many years before the Pointer was introduced, and I have little doubt that he followed the Romans, or was brought with them."

"Stonehenge" also says: "He is the most national of all our dogs, and certainly has existed for four centuries."

The trans-Atlantic Setter family is now divided into three great national classes, the English, Irish, and Gordon or Scotch varieties; each with its strongly marked distinctions of form, color, and style of performance. These may be considered the only Setters worthy of note, for though there are certainly a number of continental breeds, they cannot compare with those I have mentioned. In this country our best dogs are, as a class, those recently imported or the descendants of imported stock, although we now and then find a dog to which the title "native" may

be aptly applied, (since all trace of his descent from any particular strain has been lost,) that in the field can, for nose, pace, and staunchness, hold his own against any of his more aristocratic confreres. Here, however, he stops.

The Setter is at present the favorite with sportsmen generally, and, for my part, I think he is fully entitled to this honor; since both my own experience, and such evidence as I have been able to collect, show that he is undeniably better adapted for all kinds of work than any other field dog. As to which of the different varieties is the best it is certainly a difficult question to answer without prejudice. Each has its friends and partisans, and as between good things it is hard to make a selection I can only say that either is good enough, and my readers may follow the dictates of their own fancy without fear of getting an inferior animal provided they are careful to get *pure* blood.

It was not until the Setter had been for many years a resident of Great Britain that the Pointer made his first appearance in that realm, being imported from Spain by some admirer of his keen nose and indomitable staunchness. The original color was liver and white, and the dog was large boned, with a heavy head and slack loins. In the field he possessed exquisite scenting powers, but was surly and cross in disposition, stubborn, and almost devoid of affection for his master. Of his origin nothing is positively known, but most of the old time authorities consider him a cross from some of the larger hounds.

Whatever may have been the descent of the old Spaniard, whether pure or of hound extraction as these authors assert, the modern Pointer is essentially a made-up dog.

From his slow and pottering style, the Spaniard soon came to be regarded with disfavor, and breeders cast about them for some cross which would produce a dog perpetuating the nose and staunchness of his ancestor, but gifted with a better form and more speed. To gain these, Foxhound blood was introduced with the happiest results; and towards the close of the last century "Dash," a liver and white dog belonging to Col. Thornton, showed such supe-

rior qualities that he was sold for one hundred and twenty guineas and a cask of Medeira. This cross introduced different colors, and we have now the self or uniform colors,—such as white, liver, lemon, black,—and the black and tan, and mixed colors. Various other crosses have been introduced from time to time, as experiments, until the dog of to-day is the result of several combined strains of blood.

The Pointer has no such strongly marked natural divisions as the Setter, and the principal distinction between families lie in the color (which has been adopted and bred by different sportsmen) and the size. This last is divided by English show judges into three classes, viz., large, medium, and small. The weight of the large Pointer is from seventy pounds upwards; of the medium, from fifty-five to sixty, and of the small variety from forty-five to fifty, the bitches in each class being from five to ten pounds lighter than the dogs.

The greatest fault (and it is undeniably a great one) in the modern Pointer is his delicacy. While the Spanish Pointer was a rough-coated, thick-skinned animal, the dog of this day has a fine, satin-like coat, and a skin so thin that he is unfit for cold or severe work upon the half frozen marshes, or in thorny covers. He may, indeed, *endure* such for a time, through sheer pluck and courage, but it is only a question of time with him, and he must eventually succumb to wounds, sore feet, or frost.

## WHAT CONSTITUTES A GOOD DOG.

MR. BURGES says: However much critics may differ upon minor points, there can be no doubt of their all agreeing that the essential points of a good dog are *nose, staunchness, pace, endurance, intelligence and high breeding* These must be brought up to the highest degree of perfection, and are each of such primary importance that the absence of either will at once stamp the dog as an inferior animal. It is impossible, provided these qualities exist in a proportionate and well-balanced degree, that any animal can be too largely endowed with them; but this perfect combination is a thing of rare attainment, and hence it is that so many fall short of the standard of excellence. A brief consideration of each point will soon satisfy us of the truth of this assertion, and show how great are the requirements of a perfect animal.

### NOSE.

By *nose* we mean that keen and sensitive condition of the olfactory nerves which enables the dog to snuff "the tainted gale," and follow the unseen trail of the skulking Grouse or Cock to the very spot where it lies hid. To do this under favorable conditions of wind and ground is an easy task, and one that an ordinary animal can accomplish; but when these conditions are not present, and the ground and wind bear a faint and baffling scent, and acuteness of perceptive faculty is required, belonging only to the superior dog. To deserve such a high reputation a dog must be able to catch the faintest taint while going at full speed up or across the wind, to detect at once the presence of a close-lying bevy or a single bird, and to

locate it with certainty. The *manner* in which a dog carries his nose may seem to the uninitiated a matter of mere fancy; but indeed it is far otherwise, since what avails it that the nose be naturally good, provided it is so carried that its power cannot be brought into play? In this connection experience has taught us two things, viz.: First, that as the scent naturally rises, and is the strongest in the air, a high-headed dog can wind a bird much farther than the low-headed one that follows by foot trail. Second, that where birds are wild, the dog that carries his nose up, drawing the scent directly from the body of the bird, can approach much nearer to the game than the dog that roads it up. So marked have been the proofs of this, that "low nose, no nose" has become with many sportsmen an accepted rule, to which the few exceptions furnish corroborative testimony. From these facts it becomes evident that to take a high rank for nose, style of carriage is justly regarded as a very important point; and I am satisfied that all sportsmen who like myself have followed the dogs on bad scenting days over rough mountain ridges after the lordly Ruffed Grouse, and who have seen some cautious high-headed Setter get point after point before his lower-headed companion, will join me in upholding a rule which forms the best standard for the selection of animals worthy of the breaker's time and trouble.

## STAUNCHNESS.

After the ability to find game, comes that *staunchness* and retention of point which allows the sportsman to reap the reward of his arduous labors. How aptly come now to mind the words I have already quoted, "then shall your Setter stick"—yes, stand firm as a rooted pine, fixed and immovable. The beauty of such a point with all its attractive details of attitude, rigid, yet thrilling and quivering with latent life; its expression eloquent with mingled excitement, caution and pleasure, as the hot scent is eagerly drunk up by the broad expanded nos-

trils, would furnish a fitting subject for the artist's pencil, if it was not far beyond the power of any pencil, even that which has so lately fallen from the dead hand of the great master of animal painters.

Inspiring as such a spectacle is, the practical benefits of thorough staunchness are of much more consequence, as without this quality the Setter or Pointer is no better than the Spaniel, if as good. In working up and finding game, especially in cover, a good Spaniel will undoubtedly find as many birds as either; but as he makes no point, many shots are lost from the inability of the shooter to get a favorable position before starting his bird. I do not think it possible for a dog to be too staunch, though I have seen some that were very difficult to break from this very quality, as it was almost impossible to make them leave the first point and move up to the bird. Probably no dog ever had staunchness so largely developed as the old Spanish Pointer, which "Idstone" says (quoting from the *Sporting Magazine*) has been known to stand "for as many as twelve hours;" and in another place he speaks of an instance related to him by a reliable witness, who "came upon a dog which had been frozen dead upon his point, probably being overlooked or lost by his owner towards the decline of day; but there was the poor victim, stark and dead—a martyr to his profession, a victim to his training and culture." It is true that our dogs do not make such lasting points as this; and, indeed, I should consider it the height of cruelty to try a dog in such a manner; but we have dogs staunch enough for all practical purposes, and during my own experience I can recall several cases where dogs have been lost in thick cover and found perhaps an hour afterwards, standing staunchly. I also once owned a black and blue dog that I do not think could be induced by any means to break his point after once reaching his bird. I tried to teach him to put up his birds at the word, but in vain, for rather than go on he would charge to point—this was, however, only the case with birds that had not been fired

at, as I had no trouble in making him retrieve a dead or wounded bird after pointing it.

Of such absolute importance do I consider staunchness, that if I had a dog which possessed in an eminent degree every other qualification but was unreliable in this respect I would not give him Kennel room. I have frequently heard men (who, to do them justice, were good shots,) say that they did not care to have a dog stand any longer than just to show that he had found; but I still say that when I do not care to have a dog stand I will take up with a Spaniel, for so long as I follow a Setter I want him to show this most beautiful and convincing proof of his ancient and royal blood.

## PACE.

*Pace* is but another name for the speed which a dog exhibits in beating his ground. It is in the highest degree essential, because it saves the master both time and labor in filling his bag. With a slow dog, the gun must either follow all over a field or wait at the end of the beat till the potterer has come up. Any one who has seen a fine, high-couraged dog hunting at a slashing gallop, losing no time over blank ground, but speeding on to the corner where the bevy lies hid, and there finding his birds in half the time his slower brother would consume, will fully appreciate the difference in the two systems. In shooting Pinnated Grouse upon the prairies we find a sport which, more than any other upon this continent, resembles English Grouse-shooting; and here, from the wide range of country to be beaten, we need *pace* to get over the ground. The same may be said of Snipe, and Quail-shooting; and the only case where a high rate of speed is undesirable is in cover work. In hunting Woodcock and Ruffed Grouse the dog must, as a rule, keep within shot of the gun, for beyond this he will be liable to be lost when standing, to say nothing of utterly losing all shots at birds which rise wild, and will not lie to point. Up to a certain limit then, pace

is a consummation devoutly to be wished for; but decidedly there are limits which cannot be passed without entailing a greater loss than gain. As, for example, a prominent English breeder says he "does not want a dog that will find the greatest number of birds in a given piece of ground, but one that will find the greatest number in a day." Virtually this means that he considers it of no consequence if the dog runs over or by a part of a scattered pack, provided he has speed enough to find a fresh pack quickly. This may do for field trials, or even on well-stocked ground, but it will not do for work in this country, as game is none too plentiful, and our sportsmen especially need a dog that will find single birds after a bevy has been broken up; and a dog which goes so fast that he overruns close-lying birds is worthless, and will be beaten out of sight by a dog of more moderate pace.

## ENDURANCE.

So long as a dog does not go fast enough to over-run scent, or beyond his powers to endure continued work, the proper limits are not exceeded.

Upon a dog's powers of endurance practically depends his usefulness in the field. I have already spoken of the amount of work frequently demanded of our dogs, and it must be evident that to meet this fairly they must be endowed naturally with good constitutions, combined with strong, vigorous frames. These are the foundations upon which, by proper care and training, an enduring dog can be built up. A dog without thorough endurance is not worth his keep. No dog can by any possibility carry this to an undue extent, or become too strong and tireless. Every additional day that he is able to work adds to rather than detracts from his value; and he is indeed a fortunate man who owns a dog for whom no day is so long or hard that he will not give the gun a joyous welcome on the succeeding morning.

## INTELLIGENCE.

There are as widely different degrees of *intelligence* between dogs as between members of the human family, but I think I am safe in claiming that, as a rule, highly-bred dogs possess greater intelligence than their plebeian brothers. It is generally claimed that a dog does not possess reasoning power, but that his actions are purely instinctive; yet we often witness exhibitions of a faculty which trenches so closely upon the boundaries of the nobler attributes that it is hard to say where the dividing line is drawn. It is this capacity for appreciating and combining facts which enables the intelligent dog to acquire such a knowledge of the habits and nature of his game that he is often able to outwit the bird by a display of superior tactics. Any ordinary dog soon learns to follow a trail till the bird flushes or lies to point; but it requires a higher order of intellect to prompt the dog voluntarily to head a running bird so as to get it between himself and the gun. A truly intelligent dog is constantly advancing; his instinct or mind never rests, but goes on adding to its store of experience, so that when any emergency arises he is prepared to meet it with a corresponding action unerringly directed towards the attainment of success.

That most eloquent of sporting writers, Herbert, known to the craft as "Frank Forrester," in speaking of breeding, said: "In all animals, from man down to the bullock and Berkshire hog, I am an implicit believer in the efficacy of blood and breeding to develope all qualities, especially courage to do, and courage to bear, as well as to produce the highest and most delicate nervous organization; and I would as willingly have a cur in my shooting kennel as a mule in my racing stable, if I had one." In this theory Herbert is thoroughly supported by all experienced breeders. "Blood will tell" is not more an old saying than a positive fact, and though there is no rule without its exceptions, there are probably fewer exceptions to this than to any other.

## CHOOSING A DOG.

MR. BURGES says: In choosing a dog, the first thing to be considered, then, is blood, for though there may be and certainly are some dogs which have no definite pedigree, yet are first-class performers in the field, the advantages of superior blood are too evident to be neglected when contemplating a purchase. In all cases where a dog is represented as belonging to a particular stock, examine him to see if he bears the marks of that stock. Do not be imposed upon by the assertion that the dog is pure blooded, but is mismarked. Remember that there are certain colors which have belonged to each blood for so many years that any change in these is the strongest proof of an *outcross*.

Each of the prominent breeds of Setters, viz.: English, Irish and Gordon, has its individual and recognized color or colors, and as these are unknown to many of our sportsmen, I give the following as rules for judgment, in which I am supported by the leading sporting authorities of England.

Of the English Setter, "Stonehenge," in his "*Dogs of the British Isles*," says: "We place the colors in order of merit: 1—Orange and white, with freckled nose and legs; 2—Orange and white; 3—Lemon and white; 4—Black and white ticked, with slight tanned spots on feet and legs, commonly called Belton greys; 5—Pure white; 6—Black; 7—Fallow or yellow; 8—Liver, or liver and white." In "The Setter," Mr. Laverack mentions these colors, and gives the colors of a breed bearing his name, the blood of which can be traced back for over eighty years. Color black, or blue and white ticked. * * * * "There is another variety of the same strain, called the lemon and

white Belton, exactly the same breed and blood. These are marked similar to the blues, except being spotted all through with lemon color instead of blue."

By the expression "ticked" it is understood that the marking is in minute spots of blue, black or lemon, on white ground.

The color of the Irish Setter, like the Gordon, is in some respects in controversy. "Stonehenge" says: "The blood red, or rich chestnut or mahogany color, the deep rich red—not golden, not fallow, nor yellow, nor fawn—but deep pure blood red, is the color of an Irish Setter of high mark. This color must be unmixed with black, and tested by a strong light; there must not be black shadows or waves, much less black fringe to the ear, or profile to the frame. There are good Irish Setters nearly white, red and white, black-tan, or intimately crossed with black-tan, and in the last case showing the distinctive marks of the cross in the black tipping of the coat, which Irish judges consider a *very great* fault in color." Practically the same are the expressions of Laverack and "Idstone," though the former says, "My firm belief is that no Irish Setter exists without throwing back occasionally to black." He also says that there is a breed of deep red and white Irish dogs as pure if not purer than the red.

The Duke of Gordon is justly credited with having brought the breed named after him to its present perfection, and it has ever been a question where he got his colors from. According to some they were obtained by crossing to a colly or shepherd bitch, but the generally accepted opinion is that he introduced the red Irish blood into his kennel. The best authorities agree that there can be but four shades or mixed colors in the pure Gordon. First of these at the present time, according to "Stonehenge," "Idstone," Laverack, and all other authorities, stands the black and tan; indeed, Laverack says, "Originally, the Gordon Setters were all black and tan."

It is certain, however, that the Duke of Gordon was very partial to the black, white and tan, and in this connection

Laverack speaks of a visit to Castle Gordon, two years after the death of the Duke, and says, "then and now, all the Gordon Castle Setters were black, white and tan."

Without regard to where the cross was obtained, all judges agree that the only admissible colors for the Gordon are black and tan; black, white and tan; deep red; and pure black. These colors must also be extreme shades—that is, the black must be a raven black, and the red a rich blood hue. This restriction of color certainly marks this dog as clearly as possible, and when taken in connection with his peculiar form, renders it impossible to confound him with any other. The only possibility of error would be in mistaking the red Gordons for Irish dogs, but the build and general appearance of the two differ so much that there is but little chance for this, provided the examiner has any knowledge of the two breeds.

Now, as each of these great varieties of Setters has its own predominant color, it becomes evident that it is possible for a good dog to have a bad color: that is, for a good dog in the field to be of a color which proves he has other blood in his veins than that which his name indicates. For instance, if a man has an orange and white, liver, or liver and white dog and calls him a Gordon, the skilled judge, knowing that such colors do not belong to the Gordon at all, at once pronounces the dog not pure. Neither would a blue ticked dog pass for Irish, nor a blood red for a Laverack, unless in the latter case sufficiently strong evidence be brought forward to prove descent despite the suspicious color.

*Color*, then, affords one of the best standards by which a purchaser can judge the *purity of blood* in the Setter offered him. It is also essential that he have sufficient idea of the build and form of each breed to avoid error when the colors confound him.

Being assured of the blood, examine the dog carefully to see that he is well formed for endurance, pace, nose, and intelligence. In the Setter, the head should be high and arched between the ears. The nose, from the corner of

the eye to the tip, should be from four to four and a-half inches long; at the end it should be squarely cut, though not with heavy pendulous lips; the nostrils should be open, moist, and delicately sensitive; avoid by all means every approach to the double or split nose, a mark which never belongs to *any* pure breed of *Setter, whatsoever.* The ears should be set low on the head and should hang close to the cheeks; they should be largest at the point of intersection with the head, and should be handsomely feathered to the tips, which should be rounded and not triangular or sharp-pointed; under no circumstances should they be cocked, as that lends a very cur-like look to the animal. The neck should be long and flexible, with a clean cut connection with the head. The shoulders should be well developed with long blades, and the legs strong, though not clumsy in bone; they should have large joints at knee and pastern, and should incline slightly forward in front, so that when standing the feet will be a little in advance of a perpendicular; the hind legs should be long to the hock, with short lower limbs. The feet should be round and cat-like, with the toes arched and springy, and with thick tufts of hair between them to protect the foot when hunting. The chest should be deep, to allow room for the heart and lungs; there is a great distinction between a deep and a broad chest, the latter giving a heavy and clumsy appearance to the dog, which is generally sustained in the field by his proving slow and unable to do fast work. The ribs should be arched but not rounded, and the back ones should be as deep as possible, giving strength and support to the frame. The hips should be large and wide; the tail well set, deeply feathered in the center, running to a sharp tip, and carried below the line of the back with a slight curve upwards. The coat should be fine and silky, absolutely devoid of curl, and as straight and flat as possible; it should be of medium weight and have a tendency to part down the middle of the back. The carriage and appearance of the entire animal should be sprightly and teem-

ing with intelligence, active life, while the disposition should be affectionate and free from obstinacy or willfulness.

In selecting a Pointer, color is no proof of blood, as this dog has no distinct family marking like the Setter. It is, however, generally conceded that a large proportion of white is desirable, as this renders the dog more conspicuous when on point. "Stonehenge" says: "White, with black, liver, yellow or lemon-colored heads, are the most prized. Self-colored dogs, as the liver or black, are very handsome, and the latter are certainly popular in this country; but both are hard to distinguish when working in cover, or on dark frost-browned ground. Due regard must be paid to pedigree and form. In the latter the Pointer differs considerably from the Setter, being of different origin. The best Pointer has a medium sized head, with more width and less height than the Setter; a high forehead; broad square muzzle; strongly marked though not pendant lips; long, arched neck, with clean throat free from loose folds of skin; long body, with strong loins, wide hips, and more arched ribs than the Setter. The chest should be deep, but not too thin or flat-sided. The tail should be large and strong at the root, but drawn rapidly to a fine string-like tip. The shoulders should be long, slanting and muscular, and the legs long in the fore-arm and short from the knee to foot. The elbow should be placed well below the chest to allow of free action and speed. The feet should be round and cat-like, with toes well arched and strong, that the arches may not break down with work. The soles should be tough and thick, or the dog will come lame on rough ground. The coat in imported animals should be short, fine and soft, but a coarser and more wiry coat is better adapted for work in this country. The disposition should be mild, kindly and intelligent."

The next thing, if you are buying a broken dog, is to see him in the field and under the gun. This is absolutely essential, because there are large numbers of dogs finely yard-broken, and under perfect control when free from the

excitement of hunting, which when in the field are utterly valueless for lack of proper handling. See that the dog ranges well, carries his head up, shows a good nose, is under good control, staunch on point and charge, and a tender-mouthed retriever. All except nose, pointing and retrieving can be determined at any season of the year, and in any field, and where these cannot be tested, they must be made the subject of a warranty. I have said the dog must be tried under the gun, because in the course of my experience I have seen gun-shy dogs, that taken into a field or cover without a gun would work splendidly and deceive the purchaser into the idea that he was getting a very superior animal, but the moment the gun was taken out they would either refuse to stir from heel, or run away altogether. To test this all that is necessary is to fire a gun over him; this will also show whether he is a steady charger or a shot-breaker, the latter not conclusively but presumptively, as some dogs will break shot when they see the game fall, but charge steadily at all other times. Of course the only absolute and positive test is actual work upon game during the season, but as it is often desirable to purchase a dog before the season opens, a man of experience can generally determine the style of the dog by such a trial as I have mentioned. In the case of a tyro he had better by all means get a competent friend to examine and try the dog for him.

## DOGS ADAPTED TO SPORTING IN AMERICA.

MR. BURGES says: There are five varieties of dogs adapted to American field sports, but of these two have only a limited sphere of usefulness. All of our sporting may be done with Setters, Pointers, Spaniels, Retrievers and small Hounds, and the object of this chapter will be to show the use of each of these, and which of the three former is best calculated to most fully meet the requirements of the sportsman who seeks a dog for general work.

In considering this question intelligently, a due regard must be had for the circumstances of our sportsmen, and the nature and peculiarities of our hunting grounds and game birds. As the surface of our country presents every variety of ground frequented by the sportsman, and the birds which we seek are very diverse in character, it is evident that to fully meet all requirements a kennel of several breeds might be maintained and hunted to advantage; but as an offset to this we have the well-known fact that but very few of our sportsmen are in such circumstances, either pecuniarily or in point of habitation, as to allow of the keeping up of such an extensive establishment. The great majority keep but one dog, and with this they expect to do general work; consequently they want the best dog for work at all times and over all kinds of country, whether brake, bog or upland.

The honor of first place must lie between the Setter and Pointer, since, as we shall presently see, the Spaniel has such a narrow field for the display of his qualities that he is practically entirely out of the competition. With the field thus reduced to two, a choice can be fairly made, since we have only to give the dogs a thorough test by actual

work, and select that one which shows the greater capacity for adapting himself to all wants.

I have said that the Spaniel has a limited sphere, and is consequently unable to compete with either Pointer or Setter, but lest I be accused of injustice towards this willing and faithful little fellow, I will pause a moment to consider what his chief uses are. According to his most ardent admirers his proper place is in the thick covers haunted by the Ruffed Grouse, or Woodcock, and his work consists in finding these birds and flushing them for the gun, first giving notice of the game by a whimper that swells into a sharp yelp as the bird takes wing. Now, granting (to save argument upon this point) that this is the most sportsmanlike and killing way of hunting cover, it must at least be conceded that the Spaniel is of no use in the open, where from staunchness at point we can allow dogs thus endowed to range over ten times the ground, and consequently to find ten times the game, that a Spaniel could, since he must be hunted within gun-shot all the time in order to give any shots. Comparatively little of our hunting is in such very thick cover that a good brush shot cannot go up to his Setter when on a point and kill his bird as it gets up. I have indeed seen such places, and have often found birds quite plentiful in them, owing to the fact that the difficulty of the shooting kept hunters away. Under such circumstances Spaniels would certainly prove killing dogs. I know, too, that some men use them to tree Ruffed Grouse; but as I am writing for those true sportsmen who would scorn to pot this gallant bird, and who esteem a bag not from its numbers, but for the skill by which it is obtained, I will not make further mention of this practice, but pass on, considering that I have sustained my assertion regarding the Spaniel.

The dog that we want must work equally well in cover and open. He must be staunch enough to range the stubbles or prairies for the Quail or Pinnated Grouse, and tough enough to hunt day after day through cat-briars and thickets for Woodcock and Ruffed Grouse, and over wet, cold

marsh lands for Spring Snipe. Both Pointers and Setters have their warm friends and advocates, but in my opinion the Setter is far the most generally useful animal, and consequently the dog for this country. In support of this estimate I quote again from Laverack, who says: "That the Setter is the most *generally* useful of shooting dogs, I fancy few will deny, being possessed of more lasting powers of endurance, therefore better adapted for *all* localities and weathers. The Setter can stand cold or heat alike; the hair on his feet and between his toes allows him to hunt rough cover as well as the Spaniel." In the course of over twenty years experience in the field I have met with a great many dogs, and have seen Pointers and Setters thoroughly tested together, yet have never found the Pointer that could follow a good Setter half way through a season, beginning with Snipe in March and ending with Ruffed Grouse in December, nor do I believe the Pointer ever existed that could do this. It has never been my fortune to hunt much in the Southern States, and I know the Pointer is very popular there, so I will concede him superiority in those portions where the ground is dry and open and the climate hot; I will also grant that for Grouse shooting on the prairies from August 15 to October 10 he can beat the Setter, because generally the prairies are very dry and the Setter needs water even more than the Pointer; but here his superiority ends; each of these dogs has his sphere, and this is the Pointer's. It is, however, limited both in extent and in time, for no sooner have the extreme heats of Summer passed than the Setter can go to the prairies and do fully as good work as the Pointer, proving himself in all respects equal on the Pointer's own ground, while the latter dog cannot follow the Setter through tangled cockbrakes in July, nor through the frost-hardened, thorny covers where the Fall woodland game birds dwell.

These assertions are not matters of mere personal opinion, for they are susceptible of proof, and I know that they are endorsed by most if not all of our practically experienced sportsmen, as well as foreign authorities, one of

whom—"Stonehenge"—bears the following testimony: "Moreover, where there is not heather there are bogs, both in Irish and Scotch moors, and on wet ground the Setter is also better than the Pointer, as he is more enduring of fatigue, cold and wet."

I have heard of Pointers which had pluck enough to face the thickest cover, and whose owners would back them against any Setter; but such dogs have generally belonged to gentlemen who could leave their business for only an occasional day, and as their dogs performed well upon such occasions they deemed it conclusive evidence that they would do well on all, when the real fact is that such limited tests really form no standard for just judgment. Any man can satisfy himself on this point if he will but give the matter a fair trial, not of an occasional day, but of three month's honest, hard work. Let him start the dogs together on a prairie on the 1st of October and work East to New England, and before the middle of December he will be a convert to my opinion, if he is working his Pointer against a Setter worthy of the name.

Leaving the question of endurance, there is another mooted point worthy of consideration, viz.: nose. This is a more difficult matter to settle than the other, at least in this country, where we have yet no extensive field trials at which great numbers of both breeds can compete, so that this quality can be tested sufficiently to make it a trial of the race and not of a few individuals only. It must therefore remain a matter of opinion, unless we are willing to decide it by the expressed convictions of prominent authorities. Turning again to Laverack, I find the following words: "There is no doubt that *good bred* Setters are quite as keen of nose as Pointers." Another writer—Daniel—in his Work on "Rural Sports," says of Setters: "Their noses are undoubtedly superior." I do not claim the last, but agree more nearly with Laverack, and think the nose equally good in both, so far as I can judge from the specimens I have encountered.

Again, the friends of the Pointer claim that he is easier

to break than the Setter, and less inclined to grow rank for want of work. I will admit this with certain limitations, viz.: that the Pointer, from his general quiet disposition and lack of that dash and fire peculiar to the Setter, is an easier dog for an *inexperienced* man to handle, and for the same reason he will not show so wild at the first of a season after months of neglect; but for an experienced breaker, or any man that studies his dog's nature, I think the Setter's dash is an extra attraction, and my own experience after breaking a number of both breeds, shows me that the Setter is less likely to be sullen in disposition, and is generally a more willing worker in the training field than the Pointer. As for rankness, that is the fault of the owner alone, for if he will give his dog reasonable exercise and keep him under control, or, if he cannot do this, will slip the chain each day and give the dog a few moments yard work, he will find there is no difficulty in securing prompt obedience and steady work the first day he takes the field. If a man cannot do this he should put his dog into the hands of a steady, reliable trainer, who will do it for him; and if he will do neither, as I said before, it is his own fault if he has a wild dog at the opening of the shooting, and I do not believe in condemning the dog for his master's fault.

There remains yet one point to be brought forward in favor of the Setter, viz.: retrieving. I claim the Setter as a better general retriever because he will retrieve from water, while as a rule the Pointer will not. It frequently happens that a sportsman gets a day's Duck shooting, but has so little of this that it will not pay him to keep a regular Duck dog, yet when he can slip away to the Chesapeake, or to some of our noted inland resorts of waterfowl, he wants a dog to bring his birds from the water. I have both heard of and seen Pointers that would face cold water, and even break their way through thin ice to retrieve, but where you find one which will do this you will find a hundred that will not enter the water at all, except in warm weather. On the other hand, the Setter can

always be made a good water retriever by proper handling, and though not so enduring for *constant* water-work as a dog whose habits are more naturally aquatic, he will render good service in this line; and as we are supposed to be seeking a dog with the most varied and general powers of attainment, this is certainly worthy of note, and justly entitles him to higher rank than a dog which cannot be thus used.

My deductions from the foregoing are: If a man lives in a country abounding in small patches of thick cover and is not a good enough shot to kill his birds therein, let him use a Spaniel to drive the birds out; if he lives in a hot, dry country, and never shoots elsewhere, a Pointer will suit him best; but if he wants a dog for all kinds of work, and over which he can kill every variety of game bird with the least regard to cover, footing or temperature, let him get a high-couraged, pure-blooded Setter, intelligently handle and break him, treat him well, and fear no form of dog that can be brought against him. Such a dog I pronounce the best animal for American upland shooting."

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